PANASONIC NVJ700AM

MODEL

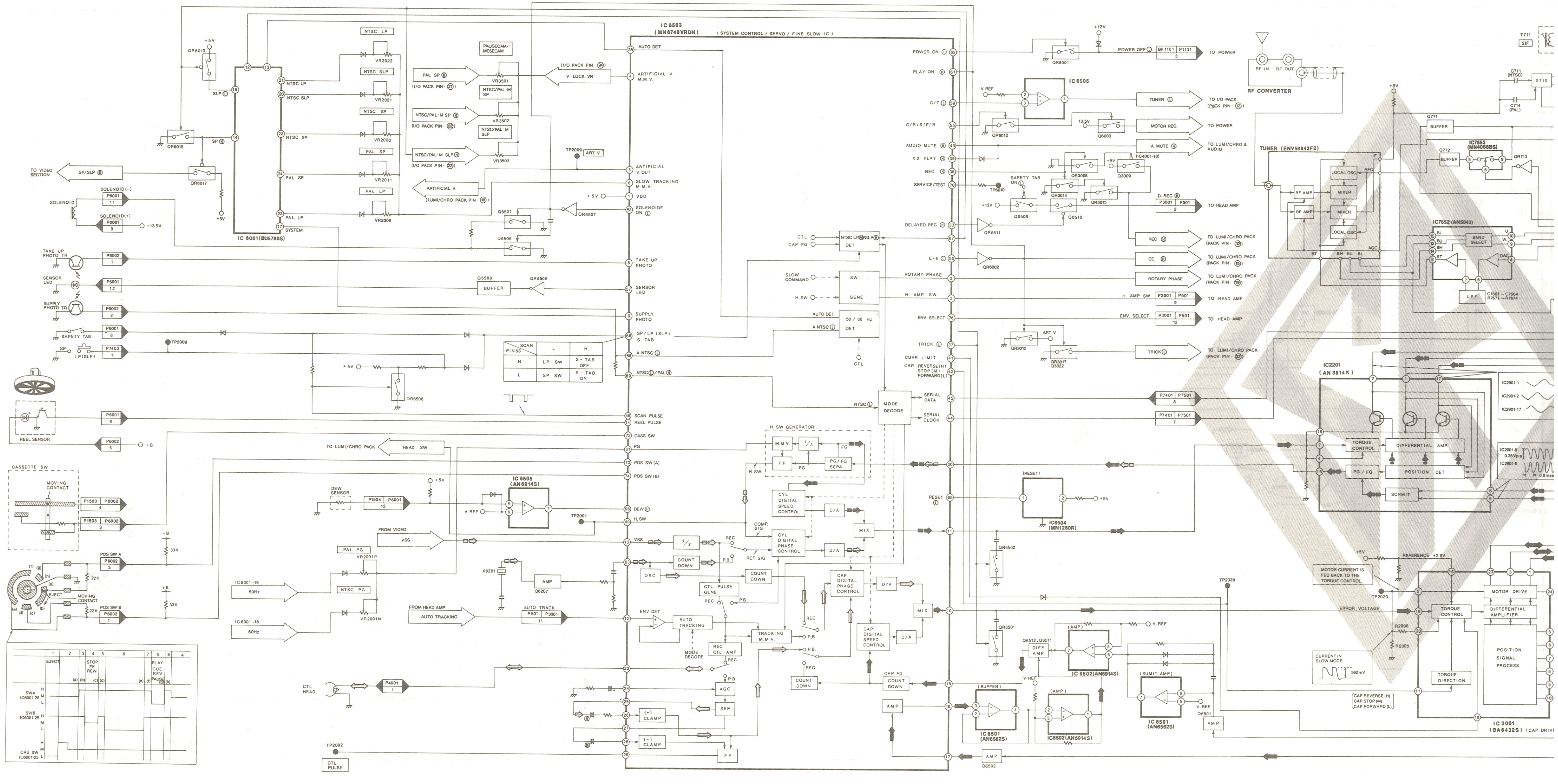
SERVICE MANUAL

SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS
3-1. SYSTEM CONTROL & SERVO BLOCK DIAGRAM

CAPSTAN SERVO SPEED LOOP

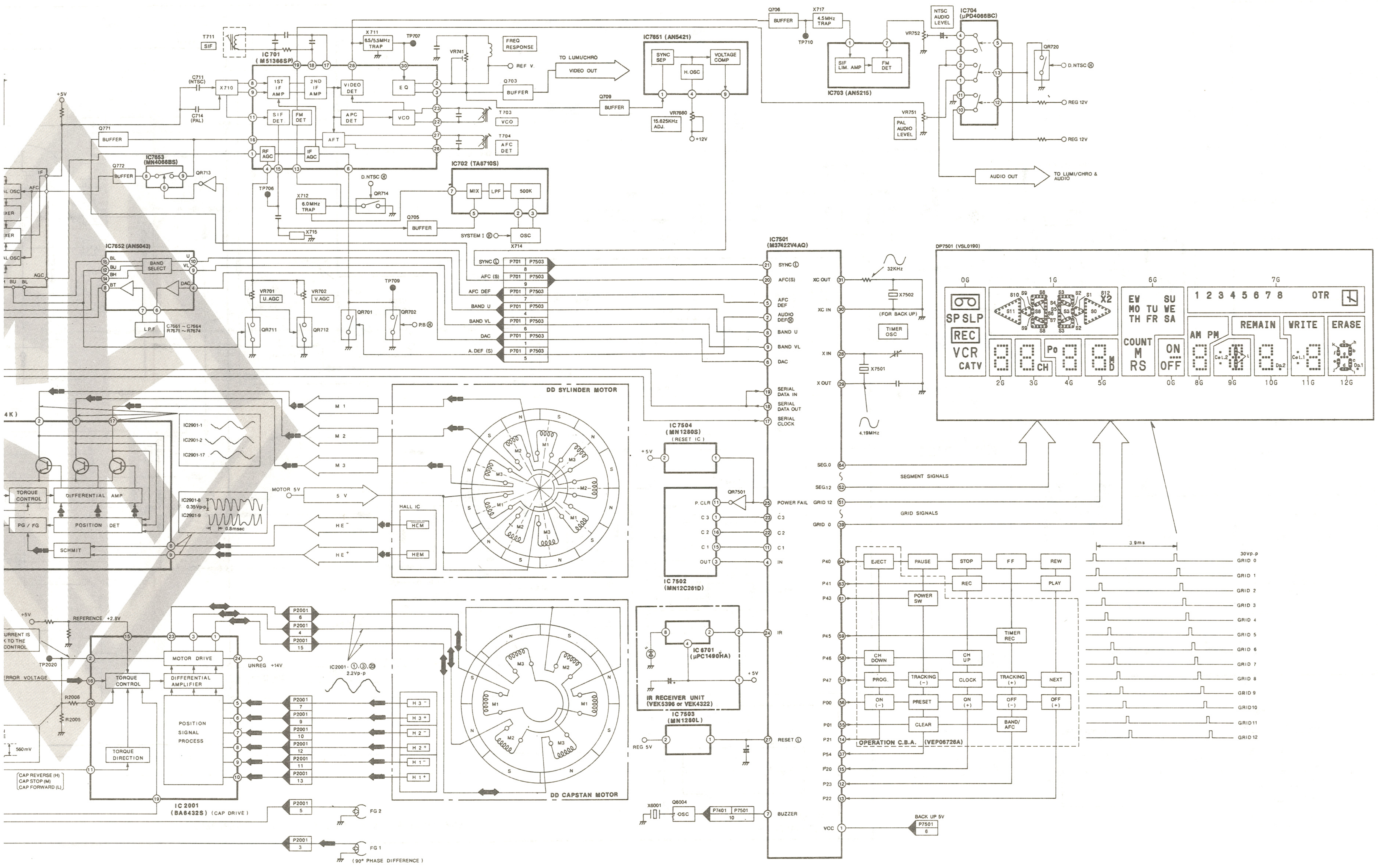
CAPSTAN SERVO PHASE LOOP

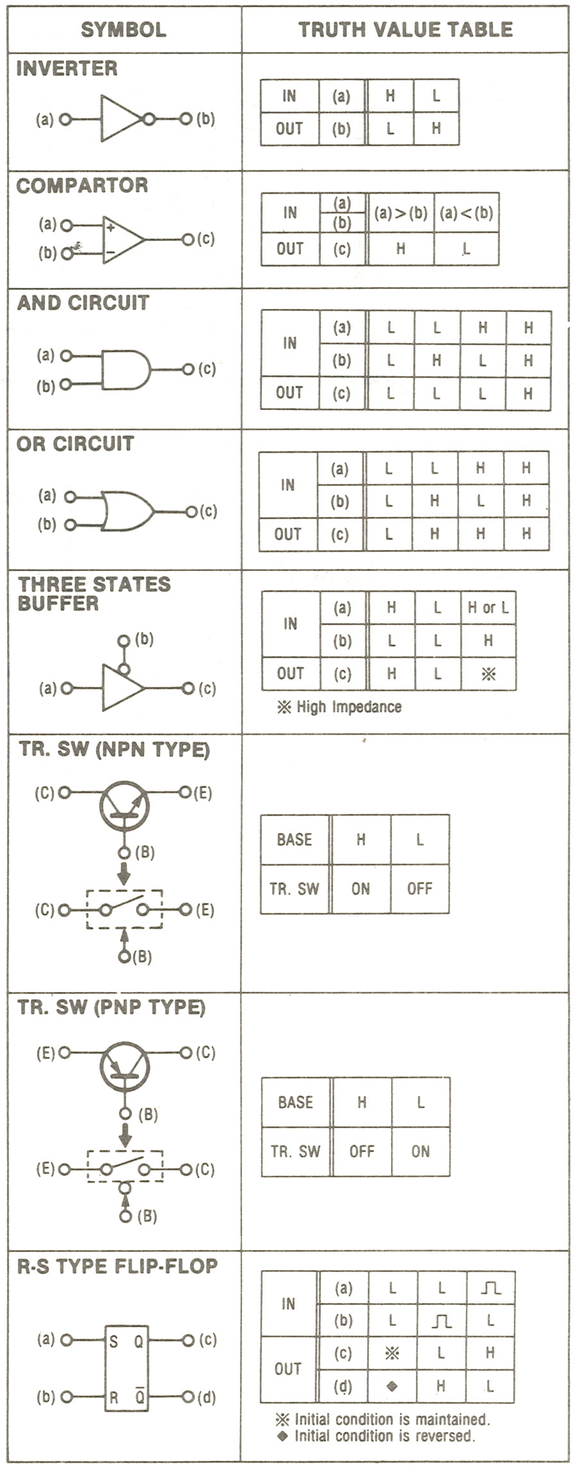
CYLINDER SERVO SPEED LOOP


IC 6503 (MN6740VRDN) (SYSTEM CONTROL / SERVO / FINE SLOW IC)
IC 6001 (BU5780S)
NTSC LP
NTSC SLP
NTSC SP
PAL SP
PAL LP
SYSTEM
VR2022
VR2021
VR2020
VR2011
VR2006
VR3501
VR3502
VR3503
PAL/SECAM/MESECAM
V-LOCK VR
(I/O PACK PIN-㉞)
ARTIFICIAL V
(LUMI/CHRO PACK PIN-⑯)
TP2009
ART. V
QR6013
QR6018
QR6017
SP/SLP
TO VIDEO SECTION
SOLENOID
SOLENOID(-)
SOLENOID(+)
P6001
+13.5V
TAKE UP PHOTO TR
SENSOR LED
SUPPLY PHOTO TR
SAFETY TAB
LP(SLP)
P6002
P7403
TP2008
SCAN PINS
LP SW
SP SW
S-TAB OFF
S-TAB ON
Q6507
Q6506
Q6508
QR6507
QR6508
QR6509
BUFFER
REEL SENSOR
CASSETTE SW
MOVING CONTACT
P1503
POS SW A
POS SW B
EJECT
33K
22K
DEW SENSOR
P1504
IC 6505 (AN6914S)
V REF
TP2001
TO LUMI/CHRO PACK
HEAD SW
FROM VIDEO
VSS
PAL PG
NTSC PG
VR2001P
VR2001N
IC6001-19 50Hz
IC6001-18 60Hz
X6201
AMP
Q6207
FROM HEAD AMP
AUTO TRACKING
AUTO TRACK
P501
P3001
CTL HEAD
P4001
TP2002
CTL PULSE
AUTO DET
ARTIFICIAL V. M.M.V.
ARTIFICIAL V.OUT
SLOW TRACKING M.M.V.
VDD
SOLENOIDE ON
TAKE UP PHOTO
SENSOR LED
SUPPLY PHOTO
SP/LP (SLP) S-TAB
A.NTSC
NTSC/PAL
SCAN PULSE
REEL PULSE
CASS SW
PG
POS SW (A)
POS SW (B)
DEW
H.SW
VSS
ENV DET
AUTO TRACKING
OSC
COUNT DOWN
CTL PULSE GENE
REC CTL AMP
MODE DECODE
TRACKING M.M.V.
AGC
SEP
(+) CLAMP
(-) CLAMP
FF
H.SW GENERATOR
M.M.V
1/3
PG/FG SEPA
CYL DIGITAL SPEED CONTROL
CYL DIGITAL PHASE CONTROL
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
CAP FG COUNT DOWN
D/A
MIX
COMP SIG
REF SIG
REC
P.B.
NTSC LP/SLP DET
CTL
CAP FG
SLOW COMMAND
SW
GENE
AUTO DET
A.NTSC
50/60 Hz DET
MODE DECODE
NTSC
SERIAL DATA
SERIAL CLOCK
POWER ON
PLAY ON
C/T
C/R/S/F/R
AUDIO MUTE
X2 PLAY
REC
SERVICE/TEST
DELAYED REC
E-E
ROTARY PHASE
H. AMP. SW
ENV. SELECT
TRICK
CURR LIMIT
CAP REVERSE(H) STOP(M) FORWARD(L)
RESET
QR6001
+12V
POWER OFF
BP1101
P1101
TO POWER
IC6505
V.REF
TUNER
TO I/O PACK (PACK PIN-⑪)
QR6012
Q6003
13.5V
MOTOR REG
A.MUTE
TO LUMI/CHRO & AUDIO
IC4001-18
QR3008
Q3009
QR3014
QR3015
TP6010
Q6509
Q6510
D.REC
P3001
P501
TO HEAD AMP
QR6511
QR6002
EE
ROTARY PHASE
TO LUMI/CHRO PACK (PACK PIN-⑱)
H. AMP SW
ENV. SELECT
QR3012
QR3017
Q3022
TRICK
P7401
P7501
(RESET)
IC6504 (MN1280R)
QR6502
QR6501
TP2026
Q6512, Q6511
DIFF AMP
IC 6502 (AN6914S)
(BUFFER)
IC6501 (AN6562S)
IC6502 (AN6914S)
(SUMIT AMP)
IC 6501 (AN6562S)
Q6501
Q6502
RF IN
RF OUT
RF CONVERTER
TUNER (ENV50843F2)
RF AMP
MIXER
LOCAL OSC
AFC
AGC
IF
Q771
Q772
BUFFER
IC7653 (MN4066BS)
QR713
C711 (NTSC)
C714 (PAL)
X710
T711
SIF
IC7652 (AN5043)
BAND SELECT
DAC
LPF
C7561~C7564 R7671~R7674
IC2201 (AN3814K)
TORQUE CONTROL
DIFFERENTIAL AMP
PG/FG
POSITION DET
SCHMIT
IC2901-1
IC2901-2
IC2901-17
IC2901-8 0.35Vp-p
IC2901-9
0.8msec
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
TP2020
ERROR VOLTAGE
REFERENCE +2.8V
R2008
R2005
CURRENT IN SLOW MODE
560mV
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
MOTOR DRIVE
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
TORQUE DIRECTION
IC 2001 (BA6432S) (CAP DRIV
SWA IC6001-26
SWB IC6001-25
CAS SW IC6001-23
STOP FF REW
PLAY CUE REV PAUSE

R SERVO SPEED LOOP

⇦ CYLINDER SERVO PHASE LOOP


T711
SIF
IC701
(M51366SP)
X711
6.5/5.5MHz TRAP
TP707
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
SIF DET
FM DET
APC DET
VCO
AFT
RF AGC
IF AGC
C711 (NTSC)
C714 (PAL)
X710
Q771
BUFFER
Q772
BUFFER
IC7653 (MN4066BS)
QR713
FREQ RESPONSE
VR741
REF V
TO LUMI/CHRO
VIDEO OUT
Q703
BUFFER
Q709
BUFFER
T703
VCO
T704
AFC DET
IC7651 (AN5421)
SYNC SEP
H.OSC
VOLTAGE COMP
VR7660
15.625KHz ADJ.
+12V
Q706
BUFFER
X717
4.5MHz TRAP
TP710
IC703 (AN5215)
SIF LIM. AMP
FM DET
NTSC AUDIO LEVEL
IC704 (μPD4066BC)
VR752
VR751
PAL AUDIO LEVEL
QR720
D.NTSC
REG 12V
AUDIO OUT
TO LUMI/CHRO & AUDIO
IC702 (TA8710S)
MIX
LPF
500K
OSC
X714
D.NTSC
QR714
TP706
X712
6.0MHz TRAP
X715
Q705
BUFFER
SYSTEM I
IC7652 (AN5043)
BAND SELECT
LPF
C7661 ~ C7664
R7671 ~ R7674
VR701
U. AGC
VR702
V. AGC
QR711
QR712
TP709
QR701
QR702
P.B
IC7501
(M37422V4AQ)
SYNC
AFC(S)
AFC DEF
BAND U
BAND VL
DAC
A. DEF (S)
P701
P7503
AUDIO DEF
XC OUT
XC IN
X IN
X OUT
32KHz
X7502
(FOR BACK UP)
TIMER OSC
X7501
4.19MHz
SERIAL DATA IN
SERIAL DATA OUT
SERIAL CLOCK
SEG.0
SEG.12
GRID 12
GRID 0
POWER FAIL
C3
C2
C1
IN
IR
RESET
BUZZER
VCC
DD CYLINDER MOTOR
M1
M2
M3
5V
HE⁻
HE⁺
HALL IC
HCM
HEM
MOTOR 5V
IC2901-1
IC2901-2
IC2901-17
IC2901-8
0.35Vp-p
IC2901-9
0.8msec
TORQUE CONTROL
DIFFERENTIAL AMP
PG / FG
POSITION DET
SCHMIT
IC7504
(MN1280S)
(RESET IC)
+5V
QR7501
P.CLR
OUT
IC7502
(MN12C261D)
IC6701
(μPC1490HA)
IR RECEIVER UNIT
(VEK5396 or VEK4322)
IC7503
(MN1280L)
REG 5V
X6001
Q6004
OSC
P7401
P7501
BACK UP 5V
DD CAPSTAN MOTOR
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
P2001
IC 2001
(BA6432S) (CAP DRIVE)
MOTOR DRIVE
DIFFERENTIAL AMPLIFIER
TORQUE CONTROL
POSITION SIGNAL PROCESS
TORQUE DIRECTION
UNREG +14V
REFERENCE +2.8V
CURRENT IS TO THE CONTROL
TP2020
ERROR VOLTAGE
R2006
R2005
560mV
CAP REVERSE (H)
CAP STOP (M)
CAP FORWARD (L)
IC2001-①,③,㉓
2.2Vp-p
FG 2
FG 1
(90° PHASE DIFFERENCE)
DP7501 (VSL0190)
0G
1G
6G
7G
SP SLP
REC
VCR
CATV
CH
Po
EW SU
MO TU WE
TH FR SA
COUNT
M
RS
ON
OFF
1 2 3 4 5 6 7 8
OTR
AM PM
REMAIN
WRITE
ERASE
2G
3G
4G
5G
8G
9G
10G
11G
12G
SEGMENT SIGNALS
GRID SIGNALS
P40
P41
P43
P45
P46
P47
P00
P01
P21
P54
P20
P23
P22
EJECT
PAUSE
STOP
FF
REW
REC
PLAY
POWER SW
TIMER REC
CH DOWN
CH UP
PROG.
TRACKING (−)
CLOCK
TRACKING (+)
NEXT
ON (−)
PRESET
ON (+)
OFF (−)
OFF (+)
CLEAR
BAND/AFC
OPERATION C.B.A. (VEP06726A)
3.9ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID10
GRID11
GRID 12



SYMBOL	TRUTH VALUE TABLE

INVERTER

IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR

IN	(a) (b)	(a) > (b)	(a) < (b)
OUT	(c)	H	L

AND CIRCUIT

IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT

IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

THREE STATES BUFFER

IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

※ High Impedance

TR. SW (NPN TYPE)

BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)

BASE	H	L
TR. SW	OFF	ON

R-S TYPE FLIP-FLOP

IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

※ Initial condition is maintained.
◆ Initial condition is reversed.

(a)
(b)
(c)
(d)
+
−
S
Q
R
$\overline{Q}$
(C)
(E)
(B)

Next Page:
LUMINANCE & CHROMINANCE Section

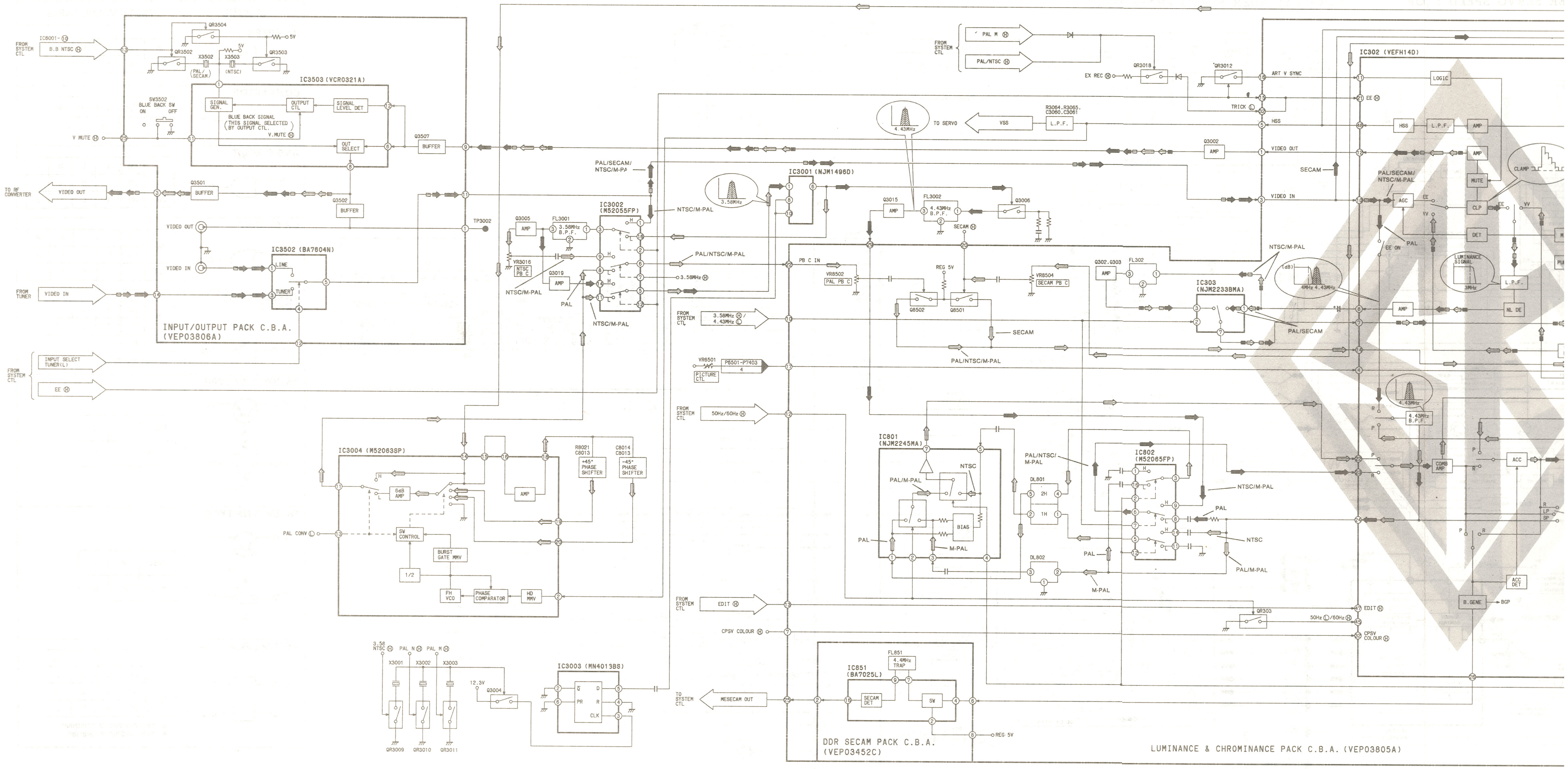
3-2. LUMINANCE & CHROMINANCE BLOCK DIAGRAM

LUMINANCE MAIN SIGNAL PATH IN REC MODE

CHROMINANCE MAIN SIGNAL PATH IN REC MODE

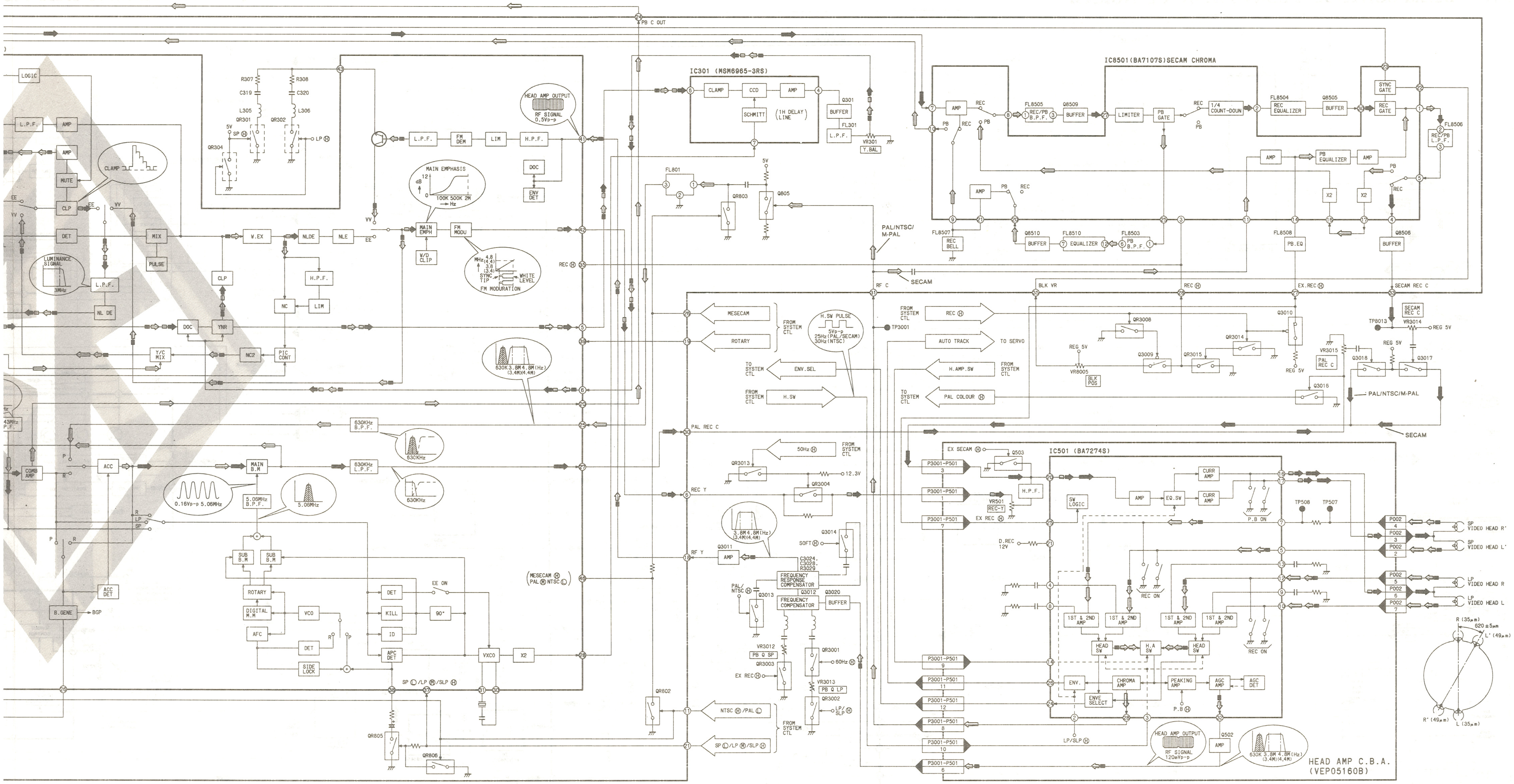
LUMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE

CHROMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE

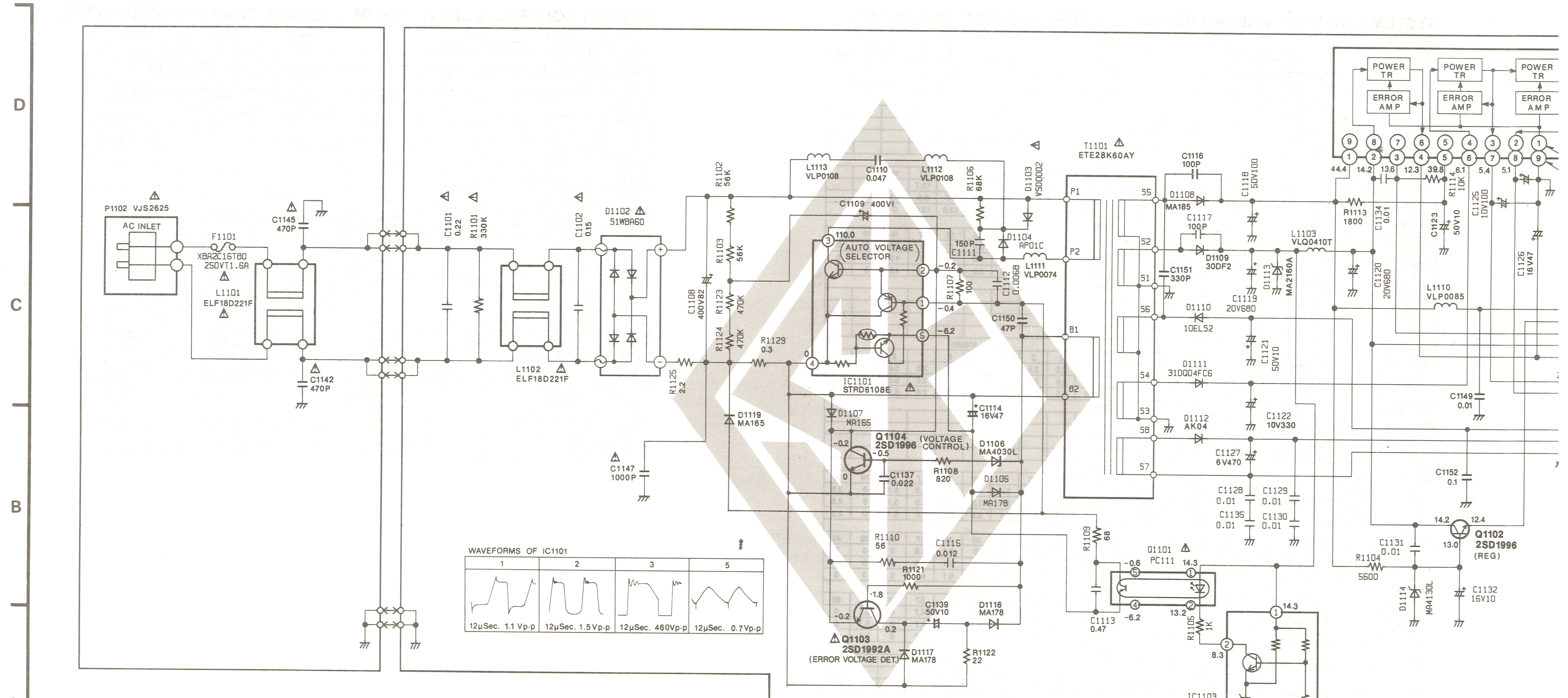

FROM SYSTEM CTL
IC6001-
B.B NTSC Ⓗ
QR3504
QR3502
QR3503
X3502
X3503
(PAL/SECAM)
(NTSC)
5V
IC3503 (VCR0321A)
SW3502 BLUE BACK SW ON OFF
SIGNAL GEN.
OUTPUT CTL
SIGNAL LEVEL DET
BLUE BACK SIGNAL (THIS SIGNAL SELECTED BY OUTPUT CTL.
V.MUTE Ⓗ
V MUTE Ⓗ
OUT SELECT
Q3507
BUFFER
TO RF CONVERTER
VIDEO OUT
Q3501
Q3502
BUFFER
VIDEO OUT
VIDEO IN
IC3502 (BA7604N)
LINE
TUNER
FROM TUNER
VIDEO IN
INPUT/OUTPUT PACK C.B.A. (VEP03806A)
INPUT SELECT TUNER(L)
EE Ⓗ
TP3002
Q3005
AMP
FL3001
3.58MHz B.P.F.
VR3016
NTSC PB C
Q3019
AMP
NTSC/M-PAL
PAL
IC3002 (M52055FP)
PAL/SECAM/NTSC/M-PAL
NTSC/M-PAL
PAL/NTSC/M-PAL
3.58MHz Ⓗ
3.58MHz
IC3001 (NJM1496D)
4.43MHz
TO SERVO
VSS
L.P.F.
R3064,R3065, C3060,C3061
Q3015
AMP
FL3002
4.43MHz B.P.F.
SECAM Ⓗ
Q3006
PB C IN
VR8502
PAL PB C
REG 5V
Q8502
Q8501
VR8504
SECAM PB C
SECAM
PAL/NTSC/M-PAL
FROM SYSTEM CTL
3.58MHz Ⓗ / 4.43MHz Ⓛ
VR6501
P6501-P7403
PICTURE CTL
50Hz/60Hz Ⓗ
IC3004 (M52063SP)
6dB AMP
AMP
SW CONTROL
BURST GATE MMV
1/2
FH VCO
PHASE COMPARATOR
HD MMV
PAL CONV Ⓛ
R8021 C8013
C8014 C8013
+45° PHASE SHIFTER
-45° PHASE SHIFTER
3.58 NTSC
PAL N Ⓗ
PAL M Ⓗ
X3001
X3002
X3003
12.3V
Q3004
QR3009
QR3010
QR3011
IC3003 (MN4013BS)
D
PR
R
CLK
IC801 (NJM2245MA)
PAL/M-PAL
NTSC
BIAS
M-PAL
PAL
DL801
2H
1H
DL802
M-PAL
IC802 (M52065FP)
PAL/NTSC/M-PAL
NTSC/M-PAL
PAL
NTSC
PAL/M-PAL
EDIT Ⓗ
CPSV COLOUR Ⓗ
TO SYSTEM CTL
MESECAM OUT
IC851 (BA7025L)
FL851
4.4MHz TRAP
SECAM DET
SW
REG 5V
DDR SECAM PACK C.B.A. (VEP03452C)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805A)
PAL M Ⓗ
PAL/NTSC Ⓗ
QR3018
QR3012
EX REC Ⓗ
TRICK Ⓛ
ART V SYNC
HSS
Q3002
AMP
VIDEO OUT
SECAM
VIDEO IN
IC302 (VEFH14D)
LOGIC
EE Ⓗ
HSS
L.P.F.
AMP
PAL/SECAM/NTSC/M-PAL
AGC
MUTE
CLP
CLAMP
DET
EE ON
EE
YV
NTSC/M-PAL
Q302,Q303
FL302
AMP
IC303 (NJM2233BMA)
PAL/SECAM
(dB)
4MHz 4.43MHz
LUMINANCE SIGNAL
3MHz
L.P.F.
NL DE
4.43MHz
4.43MHz B.P.F.
COMB AMP
ACC
ACC DET
B.GENE
BGP
LP
SP
QR303
50Hz Ⓛ/60Hz Ⓗ
EDIT Ⓗ
CPSV COLOUR Ⓗ

N PLAYBACK MODE

IN PLAYBACK MODE


PB C OUT
LOGIC
L.P.F.
AMP
MUTE
CLP
CLAMP
DET
MIX
PULSE
LUMINANCE SIGNAL
3MHz
NL DE
DOC
YNR
Y/C MIX
NC2
PIC CONT
NC
LIM
H.P.F.
CLP
W.EX
NLDE
NLE
MAIN EMPH
FM MODU
W/D CLIP
MAIN EMPHASIS
100K 500K 2M Hz
FM DEM
ENV DET
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
SYNC TIP
WHITE LEVEL
FM MODURATION
R307
R308
C319
C320
L305
L306
QR301
QR302
QR304
SP
LP
IC301 (MSM6965-3RS)
CCD
SCHMITT
(1H DELAY LINE)
BUFFER
Q301
FL301
VR301
T.BAL
FL801
QR803
Q805
PAL/NTSC/ M-PAL
REC
RF C
SECAM
630K 3.8M 4.8M (Hz) (3.4M)(4.4M)
630KHz B.P.F.
630KHz L.P.F.
630KHz
COMB AMP
ACC
ACC DET
B.GENE
BGP
MAIN B.M
SUB B.M
5.06MHz B.P.F.
0.16Vp-p 5.06MHz
ROTARY
DIGITAL M.M
AFC
VCO
KILL
ID
APC DET
90°
EE ON
SIDE LOCK
VXCO
X2
SP Ⓛ/LP Ⓗ/SLP Ⓗ
QR802
QR805
QR806
(MESECAM Ⓗ PAL Ⓗ NTSC Ⓛ)
MESECAM
ROTARY
FROM SYSTEM CTL
H.SW PULSE 5Vp-p 25Hz (PAL/SECAM) 30Hz (NTSC)
TP3001
TO SYSTEM CTL
ENV.SEL
H.SW
PAL REC C
50Hz Ⓗ
QR3013
QR3004
12.3V
REC Y
RF Y
Q3011
FREQUENCY RESPONSE COMPENSATOR
FREQUENCY COMPENSATOR
C3024, C3028, R3029
Q3014
SOFT Ⓗ
Q3012
Q3020
PAL/NTSC Ⓗ
Q3013
VR3012
PB Q SP
QR3003
EX REC Ⓗ
QR3001
60Hz Ⓗ
VR3013
PB Q LP
QR3002
LP/SLP Ⓗ
NTSC Ⓗ/PAL Ⓛ
SP Ⓛ/LP Ⓗ/SLP Ⓗ
IC8501 (BA7107S) SECAM CHROMA
FL8505
REC/PB B.P.F.
Q8509
LIMITER
PB GATE
1/4 COUNT-DOWN
FL8504
REC EQUALIZER
Q8505
SYNC GATE
REC GATE
FL8506
REC/PB L.P.F.
PB EQUALIZER
FL8507
REC BELL
Q8510
FL8510
EQUALIZER
FL8503
PB B.P.F.
FL8508
PB.EQ
Q8506
BLK VR
REC Ⓗ
EX.REC Ⓗ
SECAM REC C
AUTO TRACK
TO SERVO
QR3008
Q3010
QR3014
Q3009
Q3015
REG 5V
VR8005
BLK POS
H.AMP.SW
PAL COLOUR Ⓗ
Q3016
TP8013
VR3014
SECAM REC C
VR3015
PAL REC C
Q3018
Q3017
PAL/NTSC/M-PAL
IC501 (BA7274S)
EX SECAM Ⓗ
Q503
P3001-P501
VR501
REC-Y
EX REC Ⓗ
SW LOGIC
EQ.SW
CURR AMP
D.REC 12V
TP508
TP507
P.B ON
REC ON
1ST & 2ND AMP
HEAD SW
H.A SW
ENV.
CHROMA AMP
ENVE SELECT
PEAKING AMP
AGC AMP
AGC DET
P.B Ⓗ
LP/SLP Ⓗ
HEAD AMP OUTPUT RF SIGNAL 120mVp-p
Q502
P002
SP VIDEO HEAD R'
SP VIDEO HEAD L'
LP VIDEO HEAD R
LP VIDEO HEAD L
R (35μm)
620±5μm
L' (49μm)
R' (49μm)
L (35μm)
HEAD AMP C.B.A. (VEP05160B)

3-3. POWER SCHEMATIC DIAGRAM


D
C
B
A
P1102 VJS2625
AC INLET
F1101
XBA2C16TB0
250VT1.6A
L1101
ELF18D221F
C1145
470P
C1142
470P
C1101
0.22
R1101
330K
L1102
ELF18D221F
C1102
0.15
D1102
S1WBA60
R1125
2.2
C1108
400V82
R1102
56K
R1103
56K
R1123
470K
R1124
470K
R1129
0.3
C1147
1000P
D1119
MA165
L1113
VLP0108
C1110
0.047
L1112
VLP0108
C1109 400VI
R1106
68K
D1103
VSD0002
D1104
AP01C
150P
C1111
L1111
VLP0074
R1107
100
C1112
0.0068
C1150
47P
110.0
AUTO VOLTAGE SELECTOR
-0.2
-0.4
-6.2
0
IC1101
STRD6108E
C1114
16V47
D1107
MA165
Q1104
2SD1996
(VOLTAGE CONTROL)
-0.2
-0.5
C1137
0.022
R1108
820
D1106
MA4030L
D1105
MA178
R1110
56
C1115
0.012
R1121
1000
-1.8
Q1103
2SD1992A
(ERROR VOLTAGE DET.)
C1139
50V10
D1116
MA178
D1117
MA178
R1122
22
0.2
WAVEFORMS OF IC1101
1
2
3
5
12μSec. 1.1 Vp-p
12μSec. 1.5 Vp-p
12μSec. 460Vp-p
12μSec. 0.7Vp-p
T1101
ETE28K60AY
P1
P2
B1
B2
S5
S2
S1
S6
S4
S3
S8
S7
C1116
100P
D1108
MA185
C1118
50V100
C1117
100P
D1109
30DF2
C1151
330P
D1113
MA2160A
C1119
20V680
D1110
10ELS2
C1121
50V10
D1111
31DQ04FC6
D1112
AK04
C1122
10V330
C1127
6V470
C1128
0.01
C1129
0.01
C1135
0.01
C1130
0.01
R1109
68
Q1101
PC111
-0.6
14.3
-6.2
13.2
C1113
0.47
R1105
1K
IC1103
SE014E
14.3
8.3
L1103
VLQ0410T
R1113
1800
C1134
0.01
C1120
20V680
C1123
50V10
R1114
10K
C1125
10V100
C1126
16V47
L1110
VLP0085
C1149
0.01
C1152
0.1
POWER TR
ERROR AMP
44.4
14.2
13.6
12.3
39.8
6.1
5.4
5.1
Q1102
2SD1996
(REG)
14.2
12.4
13.0
C1131
0.01
R1104
5600
D1114
MA4130L
C1132
16V10
1
2
3
4
5
6
7
8

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

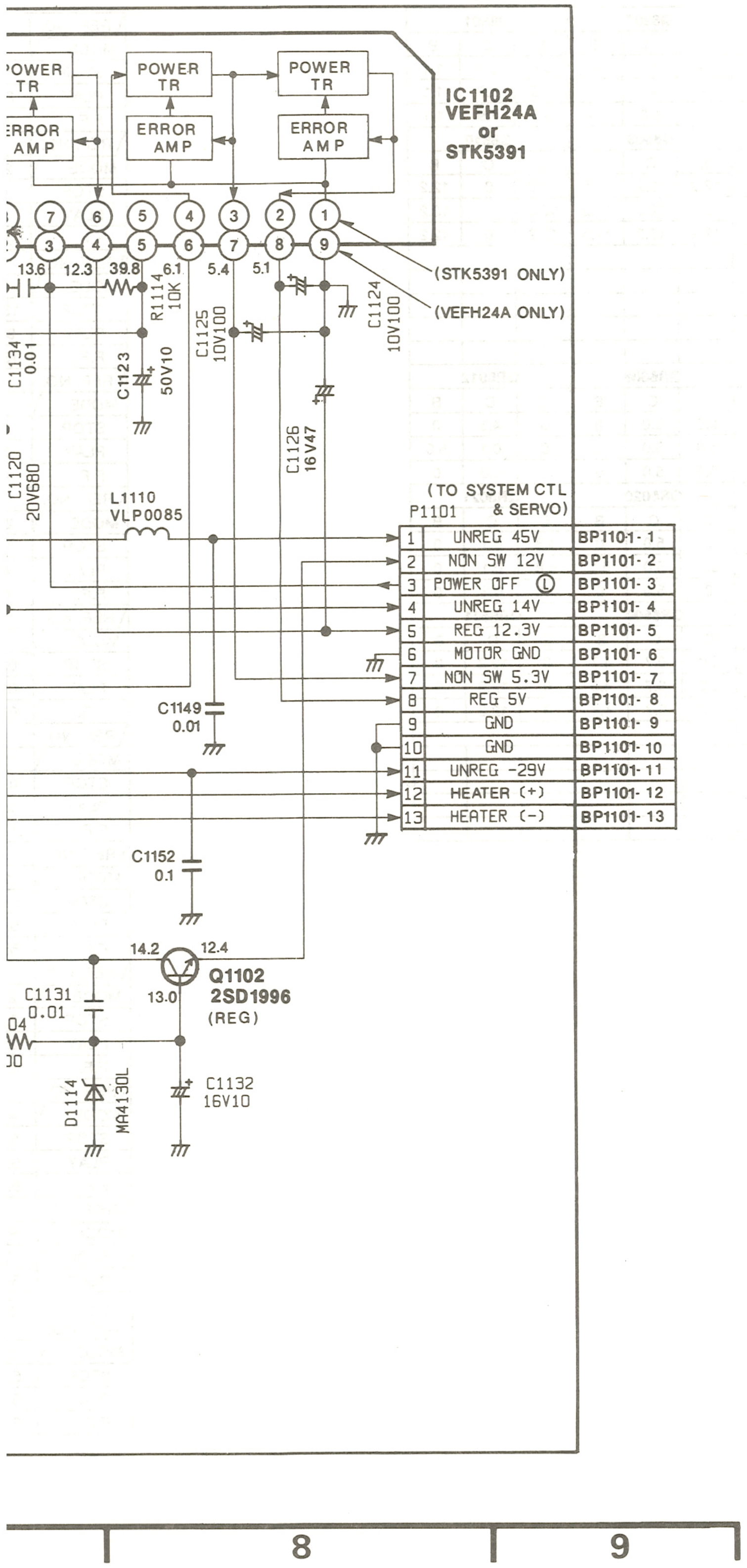
NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

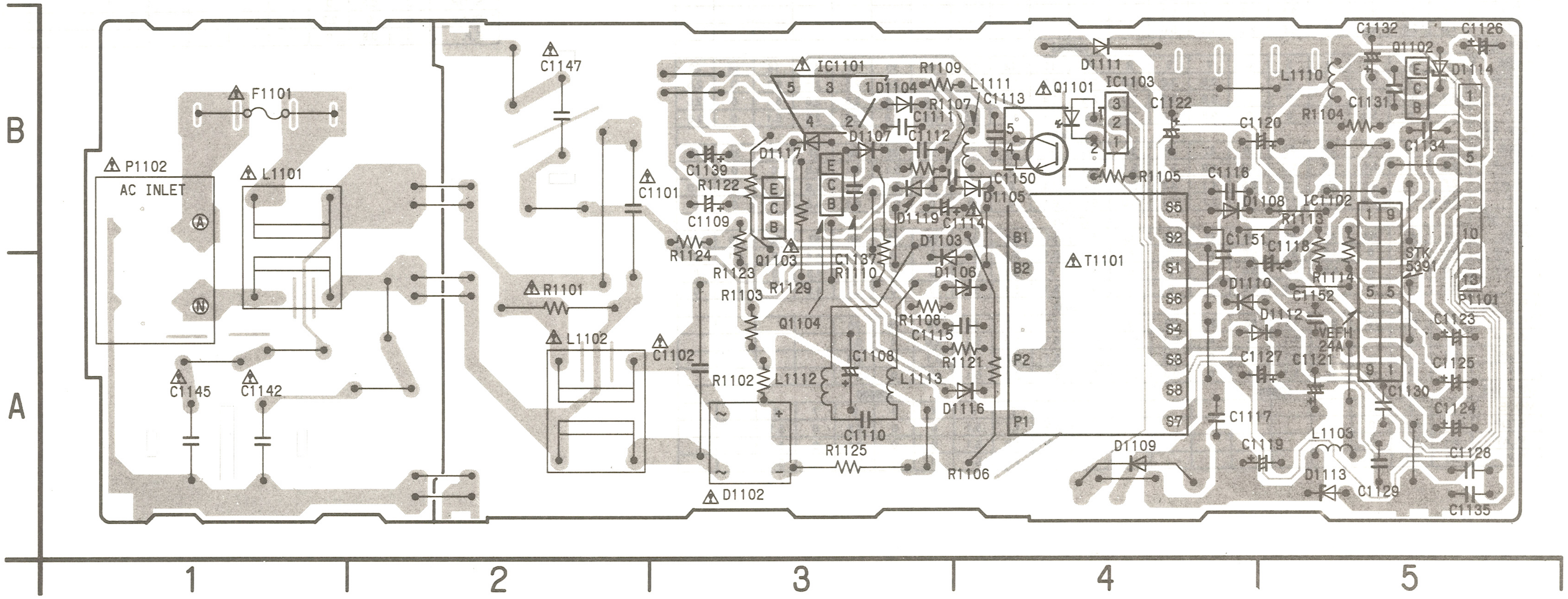
NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 240V.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

3-4. POWER C.B.A. (VEP01459A)


POWER TR
ERROR AMP
IC1102
VEFH24A
or
STK5391
(STK5391 ONLY)
(VEFH24A ONLY)
13.6
12.3
39.8
6.1
5.4
5.1
R1114 10K
C1125 10V100
C1124 10V100
C1134 0.01
C1123 50V10
C1126 16V47
C1120 20V680
L1110 VLP0085
(TO SYSTEM CTL & SERVO)
P1101
1 UNREG 45V BP1101-1
2 NON SW 12V BP1101-2
3 POWER OFF Ⓛ BP1101-3
4 UNREG 14V BP1101-4
5 REG 12.3V BP1101-5
6 MOTOR GND BP1101-6
7 NON SW 5.3V BP1101-7
8 REG 5V BP1101-8
9 GND BP1101-9
10 GND BP1101-10
11 UNREG -29V BP1101-11
12 HEATER (+) BP1101-12
13 HEATER (-) BP1101-13
C1149 0.01
C1152 0.1
14.2
12.4
13.0
Q1102
2SD1996
(REG)
C1131 0.01
D1114 MA4130L
C1132 16V10
8
9


B
A
1
2
3
4
5
P1102
AC INLET
F1101
L1101
C1145
C1142
C1147
C1101
R1101
L1102
C1102
D1102
IC1101
R1109
L1111
C1113
D1104
R1107
C1111
C1112
D1107
D1117
C1139
R1122
C1109
R1124
Q1103
R1123
R1103
R1129
Q1104
C1137
R1110
D1119
C1114
D1103
D1106
R1108
C1115
R1121
D1116
C1108
L1112
L1113
R1102
C1110
R1125
R1106
C1150
D1105
Q1101
IC1103
D1111
R1105
T1101
S1
S2
S3
S4
S5
S6
S7
S8
B1
B2
P1
P2
D1109
C1122
C1116
C1120
D1108
R1113
C1151
C1118
D1110
D1112
C1152
C1127
C1121
C1117
C1119
L1103
D1113
C1129
C1132
Q1102
C1126
D1114
L1110
C1131
R1104
C1134
IC1102
STK 5391
VEFH 24A
R1114
P1101
C1123
C1125
C1130
C1124
C1128
C1135

POWER C.B.A.	
Transistor	
Q1101	B-4
Q1102	B-5
Q1103	A-3
Q1104	A-3
Integrated Circuit	
IC1101	B-3
IC1102	B-5
IC1103	B-4
Connector	
P1101	A-5
P1102	B-1

ADDRESS INFORMATION

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE/PAL)

REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	7.7	0	7.7	0	1.8	1.8	1.8	1.7	1.7	1.8	2.1	0	5.0	3.1	2.8	0.2	0	3.9	0.6	0
PLAY	2.3	0.1	2.3	0	1.9	1.9	1.8	1.8	1.9	1.9	0	0	5.0	3.2	2.8	2.5	4.2	3.9	0.7	0.1
F.F.	3.4	0.1	3.4	0	1.8	1.8	1.8	1.8	1.8	1.8	0	0	5.0	3.2	2.8	2.5	4.1	3.9	0.7	0.1
REF. NO.	IC2001																			
MODE	21	22	23	24																
STOP	0	2.5	7.7	13.6																
PLAY	0	4.1	0.5	9.7																
F.F.	0	4.2	3.6	13.6																
REF. NO.	IC2201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
STOP	13.6	13.6	0	0	0	2.5	4.3	0.6	0.8	1.1	5.0	4.2	4.2	3.8	5.0	13.6	13.6	0		
PLAY	10.2	10.2	0	0.5	0	2.5	2.4	0.7	0.7	2.7	5.0	3.6	3.7	3.6	1.4	9.7	8.8	0		
F.F.	13.6	13.6	0	0	0	2.5	4.3	0.6	0.9	1.1	5.0	4.2	4.2	3.8	5.0	13.6	13.6	0		
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0.1	0	0	5.0	0	0	0	0	5.0	4.8	5.1	5.0	5.0	0	5.1	0	5.0	0
PLAY	0	0	0.1	0	0	5.0	0	0	0	0	5.0	4.8	5.0	5.0	5.0	0	5.0	0	5.0	0
F.F.	0	0	0.1	0	0	5.0	0	0	0	0	5.0	4.8	5.1	5.0	5.0	0	5.1	0	5.0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
STOP	0	0	0	5.0	0	5.0	0	0	0	0	0	5.0								
PLAY	0	0	0	5.0	0	5.0	0	0	0	0	0	5.0								
F.F.	0	0	0	5.0	0	5.0	0	0	0	0	0	5.0								
REF. NO.	IC6002										IC6501									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	0.7	2.9	5.2	0	0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
PLAY	0.7	2.9	5.2	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
F.F.	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
REF. NO.	IC6502																			
MODE	1	2	3	4	5	6	7	8												
STOP	0.7	2.5	2.5	0	2.5	2.5	0.7	5.0												
PLAY	1.6	2.5	2.5	0	2.5	2.5	1.7	5.0												
F.F.	1.5	2.5	2.5	0	2.5	2.5	1.5	5.0												
REF. NO.	IC6503																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.1	0	5.0	0	0	0	2.5	3.0	3.0	0.1	4.3	1.5	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
PLAY	5.1	5.1	0	0	0	0	2.5	3.0	3.0	2.5	2.4	1.9	2.5	0.2	2.5	2.5	2.5	5.1	0	2.5
F.F.	5.1	0	5.1	0	0	0	2.5	3.0	3.0	2.6	4.3	1.5	2.5	4.0	2.5	2.5	2.5	5.1	0	2.5
REF. NO.	IC6503																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	0	2.5	2.5	1.2	2.9	4.0	2.1	5.1	5.0	0.1	0	0	0	5.1	0.1	4.8	0	0	0
PLAY	2.5	0	2.5	2.5	1.3	2.5	4.1	3.2	5.1	1.4	3.4	0	0	0	5.1	0.1	4.8	0	0	5.0
F.F.	2.5	0	2.5	2.5	1.5	1.5	3.7	3.4	3.0	5.0	0.1	0	0	0	5.1	0.1	4.8	0	0	0
REF. NO.	IC6503																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	5.0	2.1	0	4.6	3.9	5.0	0	0	0	0	5.1	5.1	5.1	0	0	5.1	4.4	0	5.1	0
PLAY	5.0	0	0	4.8	4.8	5.0	0	0	0	5.1	0	5.1	5.1	0	0	5.1	4.3	0	5.1	0
F.F.	5.0	0	0	4.6	4.8	5.0	0	0	0	0	5.1	5.1	5.1	0	0	5.1	4.3	0	5.1	0
REF. NO.	IC6503																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76				
STOP	0	0	—	—	5.1	0	0	0.3	5.1	5.0	5.1	2.0	5.1	2.0	0	0.1				
PLAY	5.1	0	—	—	5.1	0	0	0.3	5.1	5.0	5.1	2.0	0	5.1	0	4.4				
F.F.	0	0	—	—	5.1	0	0	0.3	5.1	5.1	5.1	2.0	5.1	2.0	0	0.1				
REF. NO.	IC6504										IC6505									
MODE	1	2	3								1	2	3	4	5	6	7	8		
STOP	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		
PLAY	5.1	5.1	0								4.9	1.7	5.1	0	0	0.1	0	5.1		
F.F.	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE/PAL)

REF. NO.	Q6003			Q6004			Q6005			Q6006			Q6207			Q6501		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	13.7	14.2	14.3	0	0	0.8	0	0	0.7	0	44.3	0	—	5.0	—	0.4	2.0	1.1
PLAY	9.7	14.2	10.3	0	0	0.8	0	0	0.7	0	44.8	0	—	5.0	—	0.5	1.9	1.1
F.F.	13.8	14.2	14.3	0	0	0.8	0	0	0.7	0	44.4	0	—	5.0	—	0.5	1.9	1.1
REF. NO.	Q6502			Q6506			Q6507			Q6508			Q6509			Q6510		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.4	2.5	1.0	14.2	14.2	5.7	0	14.2	0	0.8	13.6	0.7	12.2	12.2	11.5	12.2	0	12.2
PLAY	0.4	2.5	1.0	14.2	14.2	5.7	0	14.2	0	0.7	9.7	0.7	12.2	12.2	11.5	12.2	0	12.2
F.F.	0.4	2.5	1.0	14.2	14.2	5.7	0	14.2	0	0.7	13.6	0.4	12.2	12.2	11.5	12.2	0	12.2
REF. NO.	Q6511			Q6512														
MODE	E	C	B	E	C	B												
STOP	0.7	0	0.7	0.7	0	0.7												
PLAY	1.7	0.9	1.9	1.6	0.9	1.9												
F.F.	1.5	0.9	1.6	1.6	0.9	1.7												
REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6008			QR6012		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	13.5	0	5.0	5.0	0	0	2.4	0	0	0	5.0	5.0	5.0	0	0	4.3	0
PLAY	0	13.5	0	5.0	0.1	5.1	0	2.3	0	0	0	5.0	5.0	5.0	0	0	0.1	5.0
F.F.	0	13.5	0	5.0	5.0	0	0	2.4	0	0	0	5.0	5.0	5.0	0	0	4.3	0
REF. NO.	QR6013			QR6017			QR6018			QR6019			QR6020			QR6021		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
PLAY	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	0.6	0	5.1	5.0	5.1	4.8	0.1	0
F.F.	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
REF. NO.	QR6501			QR6502			QR6507			QR6508			QR6509			QR6511		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.8	0	0	4.8	5.1	0	5.0	0	0.1	5.0	5.0	0.7	4.7	0	12.2	0
PLAY	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.7	4.3	0	12.2	0
F.F.	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.7	4.4	0	12.2	0
REF. NO.	QR6512																	
MODE	E	C	B															
STOP	0	0.3	0															
PLAY	0	0	2.7															
F.F.	0	0.9	0															

Back Page:
POWER Section

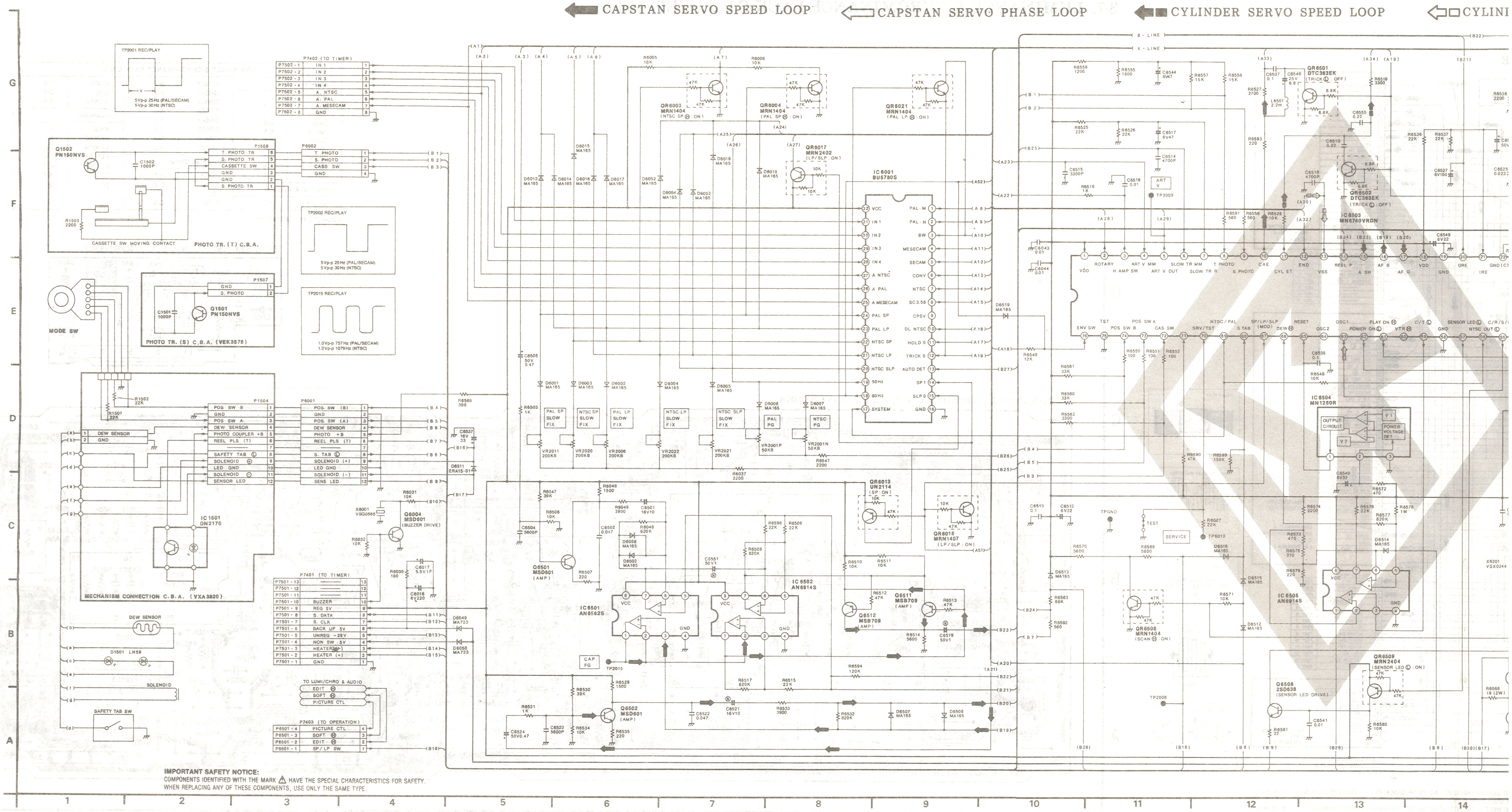
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE/NTSC)

REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	7.7	0	7.7	0	1.9	1.8	1.8	1.8	1.8	1.8	2.1	0	5.0	3.2	2.8	0.2	0	3.9	0.6	0
PLAY	2.5	0.1	2.5	0	1.9	1.8	1.8	1.8	1.8	1.8	0	0	5.0	3.2	2.8	2.5	4.2	3.9	0.7	0.1
F.F.	3.5	0.1	3.6	0	1.8	1.8	1.8	1.8	1.8	1.8	0	0	5.0	3.2	2.8	2.5	4.1	3.9	0.7	0.1
REF. NO.	IC2001																			
MODE	21	22	23	24																
STOP	0	2.5	7.7	13.7																
PLAY	0	4.1	1.1	9.7																
F.F.	0	4.2	3.8	13.6																
REF. NO.	IC2201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
STOP	13.7	13.7	0	0	0	2.5	4.3	0.6	0.9	1.1	5.0	4.2	4.2	3.8	5.0	13.7	13.7	0		
PLAY	9.5	0.9	0.1	0.5	0	2.5	2.4	0.6	0.6	2.6	5.0	3.7	3.7	3.7	1.0	9.7	9.5	0.1		
F.F.	13.6	13.6	0	0	0	2.5	4.3	0.6	0.9	1.1	5.0	4.2	4.2	3.8	5.0	13.6	13.6	0		
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0.1	0	0	5.0	4.9	5.0	0	4.7	5.0	4.8	0	5.0	5.0	0	0	4.9	0	0
PLAY	0	0	0.1	0	0	5.0	4.9	5.0	0	4.7	5.0	4.8	0	5.0	5.0	0	0	4.9	0	0
F.F.	0	0	0.1	0	0	5.0	4.9	5.0	0	4.7	5.0	4.9	0	5.0	5.0	0	5.1	4.9	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
STOP	0	5.0	0	0	0	0	4.8	0	0	0	0	5.0								
PLAY	0	5.0	0	0	0	0	4.8	0.1	0	0	0	5.0								
F.F.	0	5.0	0	0	0	0	0	0	0	0	0	5.0								
REF. NO.	IC6002										IC6501									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
PLAY	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	2.5	2.5	2.5	5.0		
F.F.	0.7	2.9	5.3	0	5.0	2.9	0.7	5.2			2.5	2.5	2.5	0	0	0	2.5	5.0		
REF. NO.	IC6502																			
MODE	1	2	3	4	5	6	7	8												
STOP	0.7	2.5	2.5	0	2.5	2.5	5.0	5.0												
PLAY	1.7	2.5	2.5	0	0	2.5	1.6	5.0												
F.F.	1.5	2.5	2.5	0	2.5	2.5	1.5	5.0												
REF. NO.	IC6503																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	5.1	5.1	0	0	0	0	2.5	3.0	3.0	0.2	4.3	1.5	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
PLAY	5.1	5.1	0	0	0	0	2.5	3.0	3.0	0	2.4	1.8	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
F.F.	5.1	5.1	0	0	0	0	2.5	3.0	3.0	2.5	4.3	1.5	2.5	5.1	2.5	2.5	2.5	5.1	0	2.5
REF. NO.	IC6503																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	2.5	0	2.5	2.5	1.2	2.9	4.0	2.1	0	5.0	0.1	0	0	0	0	0.1	4.8	0	0	0
PLAY	2.5	0	2.5	2.5	1.1	2.4	4.0	2.0	5.1	1.2	2.8	0	0	0	0	0.1	4.8	0	0	1.7
F.F.	2.5	0	2.5	2.5	2.0	1.9	3.7	3.4	2.8	5.0	0.1	0	0	0	0	0.1	4.8	0	0	0
REF. NO.	IC6503																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	5.0	2.1	0	4.8	4.2	5.0	0	0	0	0	5.1	5.1	5.1	0	0	0	4.7	0	5.1	0
PLAY	5.0	0	0	4.6	4.3	5.0	0	0	0	5.1	0	5.1	5.1	0	5.1	0	4.7	0	5.1	0
F.F.	5.0	0	0	4.8	4.2	5.0	0	0	0	0	5.1	5.1	5.1	0	0	5.1	4.7	0	5.1	0
REF. NO.	IC6503																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76				
STOP	0	0	—	—	5.1	0	0	0.3	0	5.1	5.1	2.0	5.1	2.0	0	4.4				
PLAY	5.1	0	—	—	5.1	0	0	4.4	0	5.1	5.1	2.0	0	5.1	0	4.6				
F.F.	0	0	—	—	5.1	0	0	0.3	5.1	5.1	5.1	2.0	5.1	2.0	0	4.4				
REF. NO.	IC6504										IC6505									
MODE	1	2	3								1	2	3	4	5	6	7	8		
STOP	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		
PLAY	5.1	5.1	0								4.9	0	5.1	0	0	0.3	0	5.1		
F.F.	5.1	5.1	0								4.9	1.7	5.1	0	0	0.3	0	5.1		

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE/NTSC)

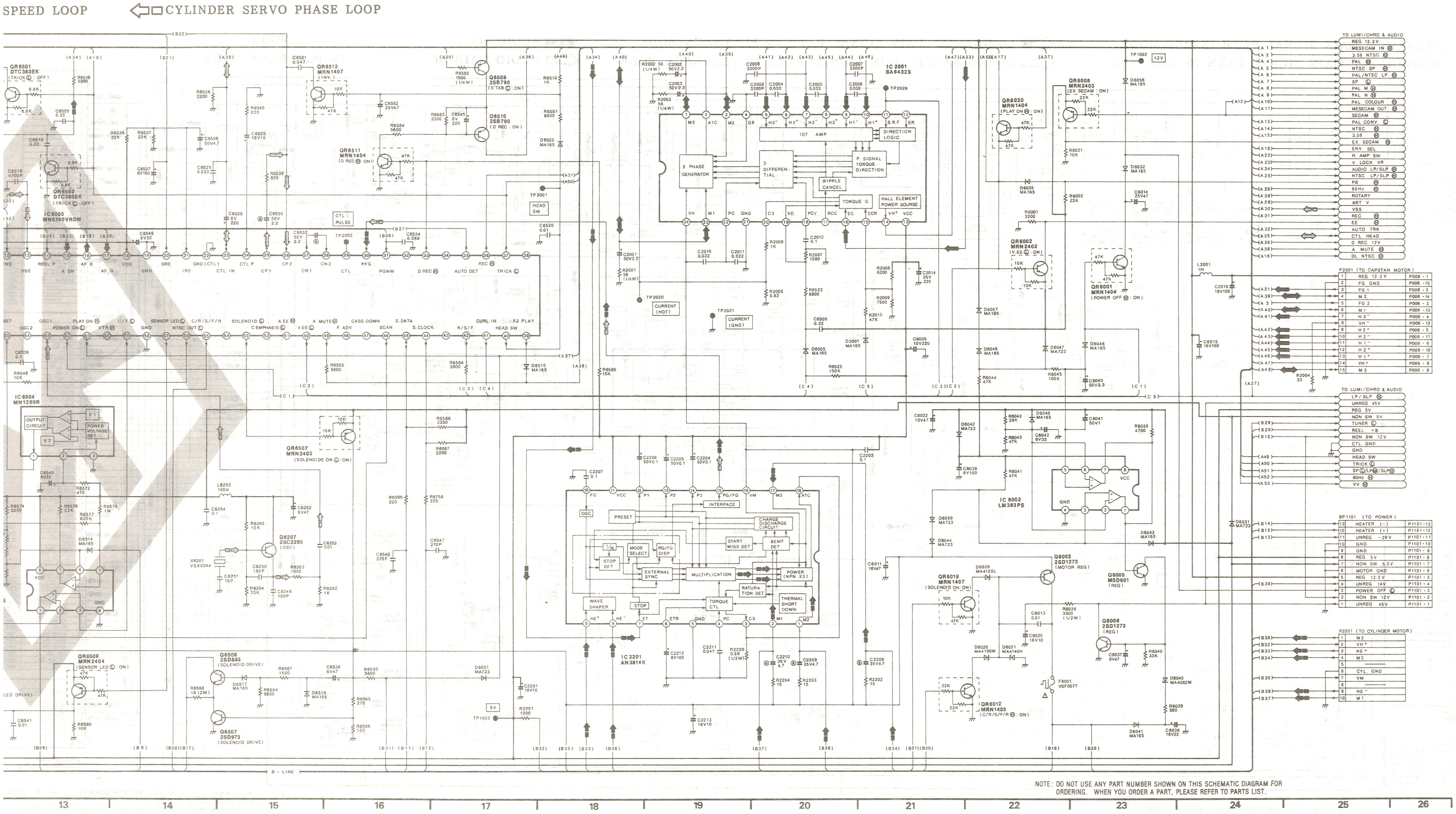
REF. NO.	Q6003			Q6004			Q6005			Q6006			Q6207			Q6501		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	13.8	14.2	14.3	0	0	0.8	0	0	0.7	0	44.3	0	—	5.0	—	0.5	1.9	1.1
PLAY	9.7	14.2	10.3	0	0	0.8	0	0	0.7	0	44.8	0.3	—	5.0	—	0.5	1.8	1.1
F.F.	13.8	14.2	14.3	0	0	0.8	0	0	0.7	0	44.8	0	—	5.0	—	0.5	1.8	1.1
REF. NO.	Q6502			Q6506			Q6507			Q6508			Q6509			Q6510		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.4	2.5	1.0	14.2	14.2	5.8	0	14.2	0	0.8	13.8	0.7	12.2	12.2	0.1	12.2	0	12.2
PLAY	0.4	2.4	1.0	14.2	14.2	5.7	0	14.2	0	0.8	9.7	0.7	12.2	11.9	11.8	11.9	0	11.9
F.F.	0.4	2.4	1.0	14.2	14.2	5.7	0	14.2	0	0.9	13.8	0.7	12.2	12.2	11.5	12.2	0	12.2
REF. NO.	Q6511			Q6512														
MODE	E	C	B	E	C	B												
STOP	0.5	0	0.7	0.7	0	0												
PLAY	1.6	0.9	1.8	1.6	0.9	1.9												
F.F.	1.5	0.9	1.6	1.5	0.9	1.8												
REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6008			QR6012		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	13.5	0	5.0	4.5	0	0	0	5.0	0	0	0	5.0	5.0	0	0	4.3	0
PLAY	0	13.5	0	5.0	0.1	5.1	0	0	5.0	0	0	0	5.0	5.0	0	0	0.1	5.1
F.F.	0	13.5	0	5.0	5.0	0	0	0	5.0	0	0	0	5.0	5.0	0	0	4.3	0
REF. NO.	QR6013			QR6017			QR6018			QR6019			QR6020			QR6021		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
PLAY	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	0.1	0	5.1	5.0	5.1	4.8	0.1	0
F.F.	5.0	5.0	0	5.0	0	5.0	0	5.0	0	0	2.0	0	0	5.0	0	4.8	0.1	0
REF. NO.	QR6501			QR6502			QR6507			QR6508			QR6509			QR6511		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.7	4.7	0	12.2	0
PLAY	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	5.0	5.0	0.4	4.7	0	11.9	0
F.F.	0	0	4.8	0	0	4.8	5.1	0	5.1	0	0.1	0.1	5.0	0.7	4.7	0	12.2	0
REF. NO.	QR6512																	
MODE	E	C	B															
STOP	0	0.1	0															
PLAY	0	0	2.6															
F.F.	0	1.0	0															

3-5. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINI
TP2001 REC/PLAY
5Vp-p 25Hz (PAL/SECAM)
5Vp-p 30Hz (NTSC)
P7402 (TO TIMER)
Q1502 PN150NVS
P1508
P6002
T. PHOTO TR
S. PHOTO TR
CASSETTE SW
GND
CASSETTE SW MOVING CONTACT
PHOTO TR. (T) C.B.A.
TP2002 REC/PLAY
TP2015 REC/PLAY
1.0Vp-p 757Hz (PAL/SECAM)
1.0Vp-p 1079Hz (NTSC)
P1507
Q1501 PN150NVS
MODE SW
PHOTO TR. (S) C.B.A. (VEK3578)
P1504
P6001
POS SW B
POS SW A
DEW SENSOR
PHOTO COUPLER +B
REEL PLS (T)
SAFETY TAB
SOLENOID
LED GND
SENSOR LED
IC1501 DN2170
MECHANISM CONNECTION C.B.A. (VXA3820)
DEW SENSOR
D1501 LN59
SOLENOID
SAFETY TAB SW
P7401 (TO TIMER)
BUZZER
REG 5V
S. DATA
S. CLK
BACK UP 5V
UNREG -29V
NON SW 5V
HEATER
TO LUMI/CHRO & AUDIO
EDIT
SOFT
PICTURE CTL
P7403 (TO OPERATION)
SP/LP SW
X6001 VSQ0565
Q6004 MSD601 (BUZZER DRIVE)
QR6003 MRN1404 (NTSC SP ON)
QR6004 MRN1404 (PAL SP ON)
QR6017 MRN2402 (LP/SLP ON)
QR6021 MRN1404 (PAL LP ON)
IC6001 BU5780S
VCC
IN1
IN2
IN3
IN4
A NTSC
A PAL
A MESECAM
PAL SP
PAL LP
NTSC SP
NTSC LP
NTSC SLP
50Hz
60Hz
SYSTEM
PAL-M
PAL-N
BW
MESECAM
SECAM
CONV
NTSC
SC3.58
CPSV
DL NTSC
HOLD 0
TRICK 0
AUTO DET
SP 1
SLP 0
VR2011 200KB
VR2020 200KB
VR2006 200KB
VR2022 200KB
VR2021 200KB
VR2001P 50KB
VR2001N 50KB
PAL SP SLOW FIX
NTSC SP SLOW FIX
PAL LP SLOW FIX
NTSC LP SLOW FIX
NTSC SLP SLOW FIX
PAL PG
NTSC PG
QR6013 UN2114 (SP: ON)
QR6018 MRN1407 (LP/SLP: ON)
Q6501 MSD601 (AMP)
IC6501 AN6562S
IC6502 AN6914S
Q6511 MSB709 (AMP)
Q6512 MSB709 (AMP)
CAP FG
TP2015
Q6502 MSD601 (AMP)
B-LINE
A-LINE
QR6501 DTC363EK (TRICK OFF)
QR6502 DTC363EK (TRICK OFF)
IC6503 MN6740VRDN
ROTARY
H AMP SW
ART V MM
ART V OUT
SLOW TR MM
SLOW TR R
T. PHOTO
S. PHOTO
CAE
CYL ET
END
VSS
REEL P
A SH
AF B
AF G
VDD
GND
ENV SW
TST
POS SW B
POS SW A
CAS SW
SRV/TST
NTSC/PAL
SP/LP/SLP
S TAB
DEW
RESET
OSC2
OSC1
POWER ON
PLAY ON
VTR
C/T
SENSOR LED
IC6504 MN1280R
OUTPUT CIRCUIT
POWER VOLTAGE DET
TPGND
TEST
SERVICE
TP6010
QR6508 MRN1404 (SCAN ON)
IC6505 AN6914S
X6201 VSX0244
TP2008
Q6508 2SD638 (SENSOR LED DRIVE)
QR6509 MRN2404 (SENSOR LED ON)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
G
F
E
D
C
B
A

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NV-J700AM

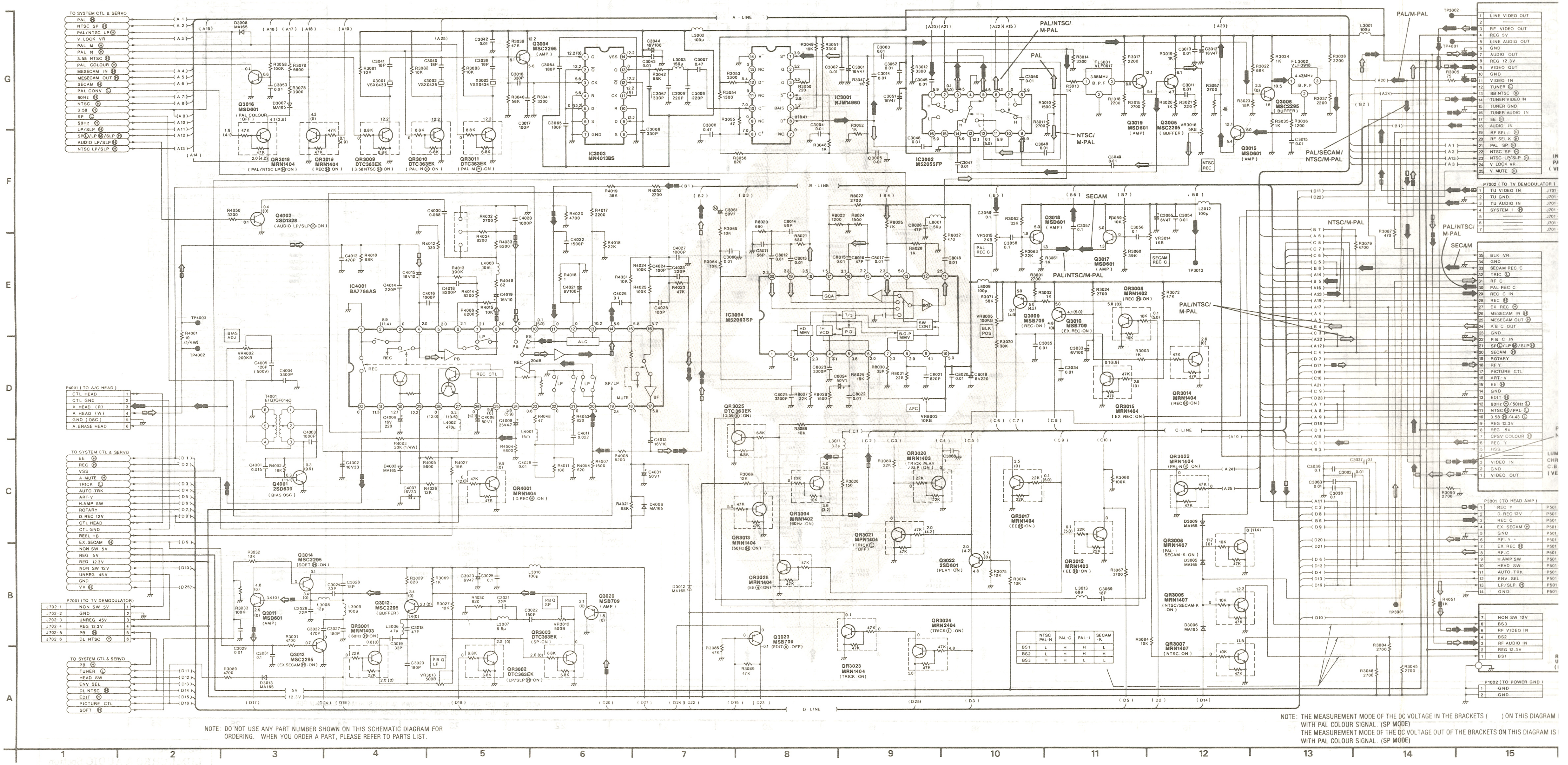

SPEED LOOP
CYLINDER SERVO PHASE LOOP
IC 2001 BA6432S
3 PHASE GENERATOR
1ST AMP
DIRECTION LOGIC
P. SIGNAL TORQUE DIRECTION
RIPPLE CANCEL
TORQUE C
HALL ELEMENT POWER SOURSE
IC 2201 AN3814K
PRESET
INTERFACE
CHARGE DISCHARGE CIRCUIT
START MISS DET
BEMF DET
STOP DET
MODE SELECT
PG/FG DISP
EXTERNAL SYNC
MULTIPLICATION
POWER (NPN X3)
RATURA TION DET
TORQUE CTL
THERMAL SHORT DOWN
WAVE SHAPER
STOP
IC 6002 LM393PS
IC 6504 MN1280R
OUTPUT CIRCUIT
POWER VOLTAGE DET
IC 6503 MN6740VRDN
TO LUMI/CHRO & AUDIO
P2001 (TO CAPSTAN MOTOR)
BP1101 (TO POWER)
P2201 (TO CYLINDER MOTOR)
TP2001
TP2002
TP2020
TP2021
TP2026
TP1002
TP1003
CURRENT (HOT)
CURRENT (GND)
HEAD SW
CTL PULSE
12V
5V
B - LINE
13
14
15
16
17
18
19
20
21
22
23
24
25
26

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
LUMI/CHRO & AUDIO Section

3-6. LUMINANCE/CHROMINANCE & AUDIO SCHEMATIC DIAGRAM

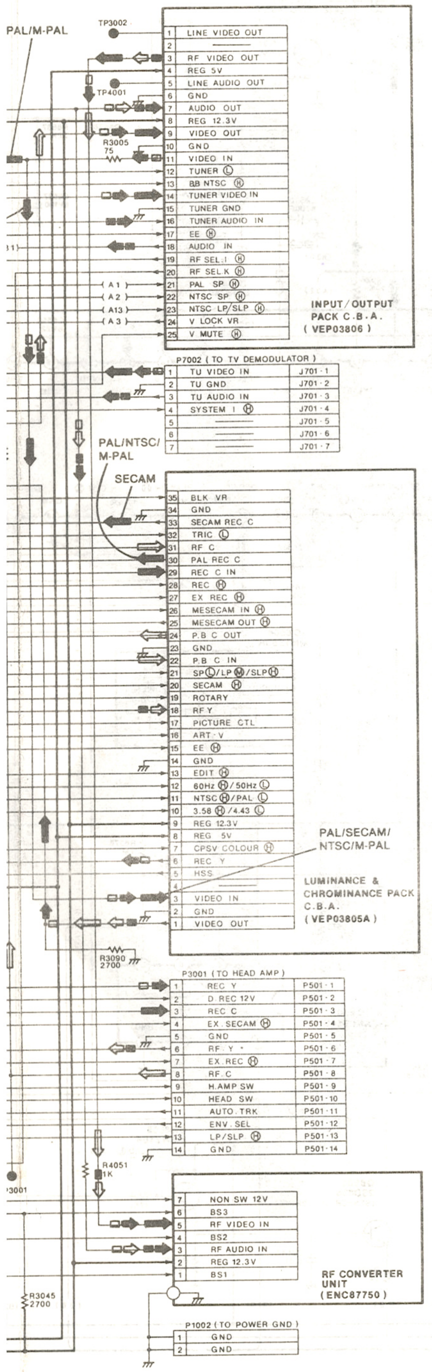
- LUMINANCE MAIN SIGNAL PATH IN REC MODE
- CHROMINANCE MAIN SIGNAL PATH IN REC MODE
- LUMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE
- CHROMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE
- AUDIO MAIN SIGNAL PATH IN REC MODE
- AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

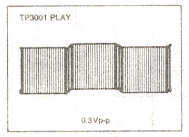


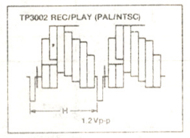
TO SYSTEM CTL & SERVO
A-LINE
B-LINE
C-LINE
D-LINE
IC3003 MN4013BS
IC3001 NJM4560
IC3002 M52055FP
IC4001 BA7766AS
IC3004 M52063SP
PAL/NTSC/M-PAL
NTSC/M-PAL
PAL/SECAM/NTSC/M-PAL
SECAM
NTSC/M-PAL
PAL/NTSC/M-PAL
P4001 (TO A/C HEAD)
P7001 (TO TV DEMODULATOR)
P7002 (TO TV DEMODULATOR)
P3001 (TO HEAD AMP)
P1002 (TO POWER GND)
TP3001
TP3002
TP3013
TP4001
TP4002
TP4003
Q3004 MSC2295
Q3016 MSD601
Q3019 MSD601
Q3005 MSC2295
Q3006 MSC2295
Q3015 MSD601
Q3018 MSD601
Q3017 MSD601
Q3009 MSB709
Q3010 MSB709
Q4001 2SD639
Q4002 2SD1328
Q3014 MSC2295
Q3011 MSD601
Q3012 MSC2295
Q3013 MSC2295
Q3020 MSB709
Q3022 2SD601
Q3023 MSB709
QR3018 MRN1404
QR3019 MRN1404
QR3009 DTC363EK
QR3010 DTC363EK
QR3011 DTC363EK
QR3025 DTC363EK
QR4001 MRN1404
QR3001 MRN1403
QR3002 DTC363EK
QR3003 DTC363EK
QR3004 MRN1402
QR3013 MRN1404
QR3026 MRN1404
QR3020 MRN1403
QR3021 MRN1404
QR3017 MRN1404
QR3012 MRN1403
QR3023 MRN1404
QR3024 MRN2404
QR3008 MRN1402
QR3015 MRN1404
QR3014 MRN1404
QR3022 MRN1404
QR3006 MRN1407
QR3005 MRN1407
QR3007 MRN1407
T4001

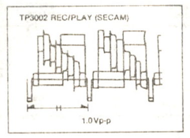
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

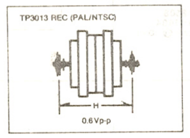
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM
WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS
WITH PAL COLOUR SIGNAL. (SP MODE)

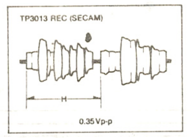

PAL/M-PAL
TP3002
TP4001
R3005 75
1 LINE VIDEO OUT
2
3 RF VIDEO OUT
4 REG 5V
5 LINE AUDIO OUT
6 GND
7 AUDIO OUT
8 REG 12.3V
9 VIDEO OUT
10 GND
11 VIDEO IN
12 TUNER Ⓛ
13 BB NTSC Ⓗ
14 TUNER VIDEO IN
15 TUNER GND
16 TUNER AUDIO IN
17 EE Ⓗ
18 AUDIO IN
19 RF SEL.I Ⓗ
20 RF SEL.K Ⓗ
21 PAL SP Ⓗ
22 NTSC SP Ⓗ
23 NTSC LP/SLP Ⓗ
24 V LOCK VR
25 V MUTE Ⓗ
(A1)
(A2)
(A13)
(A3)
INPUT/OUTPUT PACK C.B.A. (VEP03806)
P7002 (TO TV DEMODULATOR)
1 TU VIDEO IN J701·1
2 TU GND J701·2
3 TU AUDIO IN J701·3
4 SYSTEM I Ⓗ J701·4
5 J701·5
6 J701·6
7 J701·7
PAL/NTSC/M-PAL
SECAM
35 BLK VR
34 GND
33 SECAM REC C
32 TRIC Ⓛ
31 RF C
30 PAL REC C
29 REC C IN
28 REC Ⓗ
27 EX REC Ⓗ
26 MESECAM IN Ⓗ
25 MESECAM OUT Ⓗ
24 P.B C OUT
23 GND
22 P.B C IN
21 SPⓁ/LPⓂ/SLPⒽ
20 SECAM Ⓗ
19 ROTARY
18 RF Y
17 PICTURE CTL
16 ART·V
15 EE Ⓗ
14 GND
13 EDIT Ⓗ
12 60Hz Ⓗ/50Hz Ⓛ
11 NTSC Ⓗ/PAL Ⓛ
10 3.58 Ⓗ/4.43 Ⓛ
9 REG 12.3V
8 REG 5V
7 CPSV COLOUR Ⓗ
6 REC Y
5 HSS
4
3 VIDEO IN
2 GND
1 VIDEO OUT
PAL/SECAM/NTSC/M-PAL
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805A)
R3090 2700
P3001 (TO HEAD AMP)
1 REC Y P501·1
2 D.REC 12V P501·2
3 REC C P501·3
4 EX.SECAM Ⓗ P501·4
5 GND P501·5
6 RF Y P501·6
7 EX.REC Ⓗ P501·7
8 RF.C P501·8
9 H.AMP SW P501·9
10 HEAD SW P501·10
11 AUTO.TRK P501·11
12 ENV.SEL P501·12
13 LP/SLP Ⓗ P501·13
14 GND P501·14
R4051 1K
3001
7 NON SW 12V
6 BS3
5 RF VIDEO IN
4 BS2
3 RF AUDIO IN
2 REG 12.3V
1 BS1
RF CONVERTER UNIT (ENC87750)
R3045 2700
P1002 (TO POWER GND)
1 GND
2 GND











E DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE
MODE)
E DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
MODE)

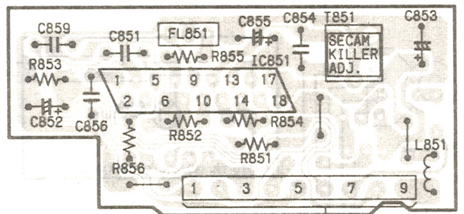
14 15 16

3-7. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805A)

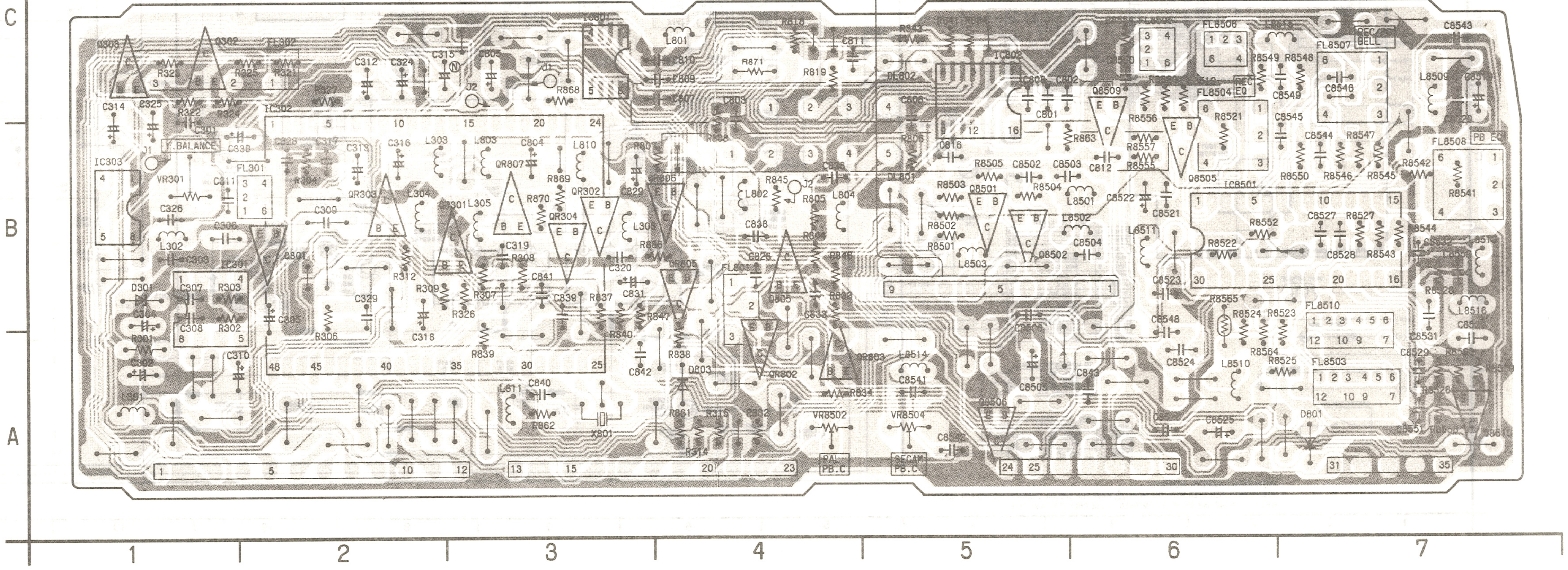
LUMINANCE & CHROMINANCE PACK C.B.A.	
Transistor	
Q301	B-2
Q302	C-1
Q303	C-1
Q805	B-4
Q8501	B-5
Q8502	B-5
Q8505	B-6
Q8506	A-5
Q8509	C-6
Q8510	A-7
Transistor & Resistor	
QR301	B-2
QR302	B-3
QR303	B-2
QR304	B-3
QR802	A-4
QR803	A-4
QR805	B-4
QR806	B-4
QR807	B-3
Integrated Circuit	
IC301	B-1
IC302	C-2
IC303	B-1
IC801	C-3
IC802	C-5
IC851	D-7
IC8501	B-6
Adjustment	
VR301	B-1
VR8502	A-4
VR8504	A-5
FL8504	C-6
FL8507	C-7
FL8508	B-7
T851	D-7

ADDRESS INFORMATION

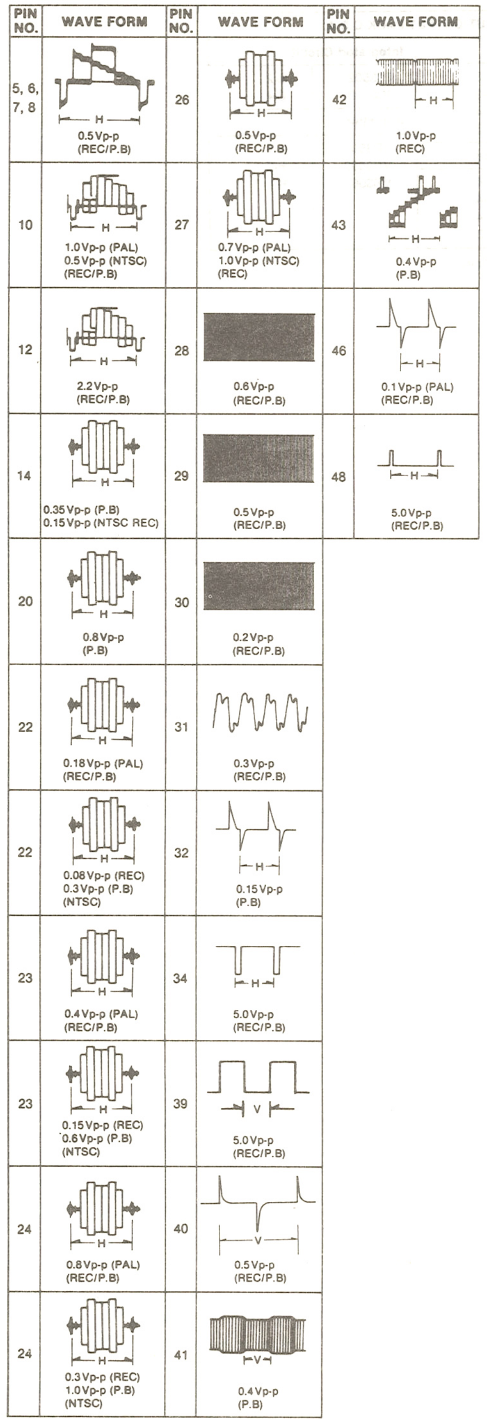
DDR SECAM PACK C.B.A. (VEP03452C)


C859
C851
FL851
C855
C854
T851
C853
SECAM KILLER ADJ.
R853
R855
IC851
1 5 9 13 17
2 6 10 14 18
C852
C856
R852
R854
R851
R856
L851
1 3 5 7 9

LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805A)

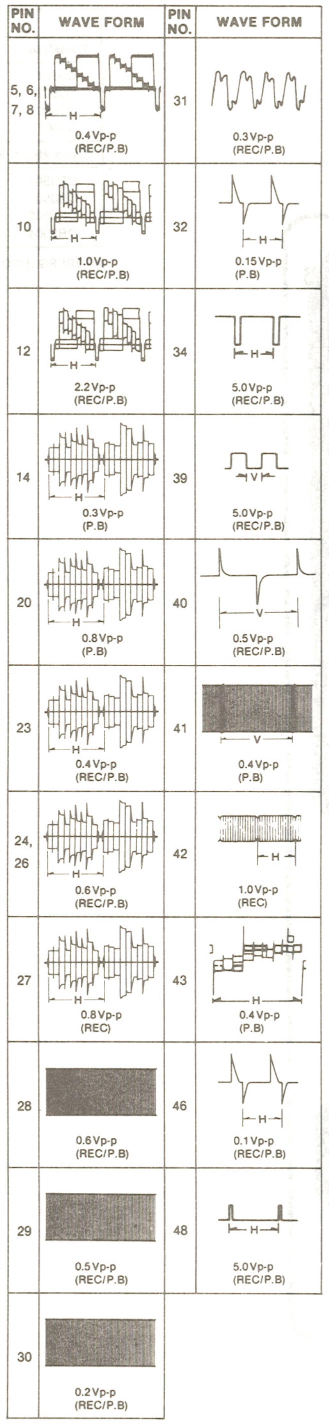

C
B
A
1
2
3
4
5
6
7
Q303
Q302
FL302
IC302
C314
C325
Y.BALANCE
VR301
IC303
FL301
QR303
QR807
QR304
QR302
IC801
L801
R871
R819
IC802
FL8506
FL8507
REC BELL
C8543
FL8504
REC EQ
Q8509
L8509
FL8508
PB EQ
IC8501
Q8501
Q8502
L8503
FL8510
FL8503
L8516
D801
X801
QR802
VR8502
VR8504
Q8506
L8514
PAL PB.C
SECAM PB.C
1 5 10 12 13 15 20 23 24 25 30 31 35

IC302 (VEFH14D)
(SP MODE: PAL/NTSC)



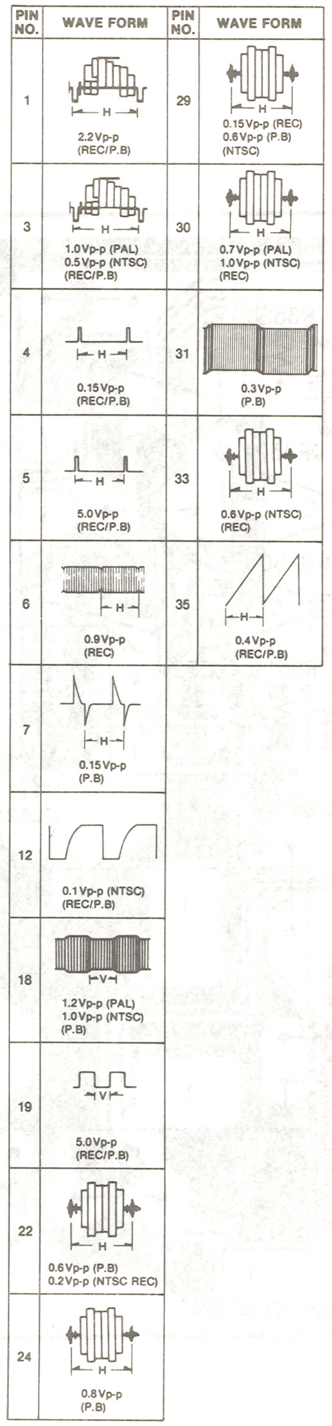
PIN NO.	WAVE FORM	PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
5, 6, 7, 8	0.5Vp-p (REC/P.B)	26	0.5Vp-p (REC/P.B)	42	1.0Vp-p (REC)
10	1.0Vp-p (PAL) 0.5Vp-p (NTSC) (REC/P.B)	27	0.7Vp-p (PAL) 1.0Vp-p (NTSC) (REC)	43	0.4Vp-p (P.B)
12	2.2Vp-p (REC/P.B)	28	0.6Vp-p (REC/P.B)	46	0.1Vp-p (PAL) (REC/P.B)
14	0.35Vp-p (P.B) 0.15Vp-p (NTSC REC)	29	0.5Vp-p (REC/P.B)	48	5.0Vp-p (REC/P.B)
20	0.8Vp-p (P.B)	30	0.2Vp-p (REC/P.B)		
22	0.18Vp-p (PAL) (REC/P.B)	31	0.3Vp-p (REC/P.B)		
22	0.08Vp-p (REC) 0.3Vp-p (P.B) (NTSC)	32	0.15Vp-p (P.B)		
23	0.4Vp-p (PAL) (REC/P.B)	34	5.0Vp-p (REC/P.B)		
23	0.15Vp-p (REC) 0.6Vp-p (P.B) (NTSC)	39	5.0Vp-p (REC/P.B)		
24	0.8Vp-p (PAL) (REC/P.B)	40	0.5Vp-p (REC/P.B)		
24	0.3Vp-p (REC) 1.0Vp-p (P.B) (NTSC)	41	0.4Vp-p (P.B)		

IC302 (VEFH14D)
(SP MODE: SECAM)



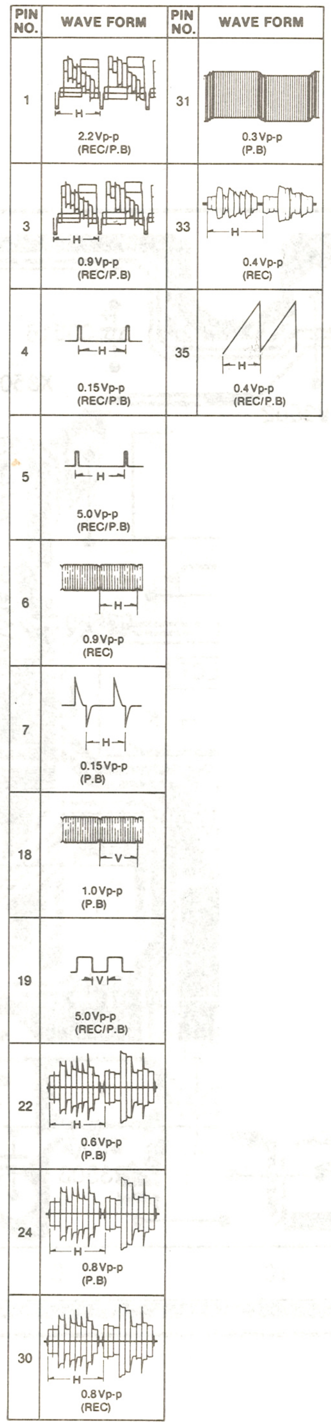
PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
5, 6, 7, 8	0.4Vp-p (REC/P.B)	31	0.3Vp-p (REC/P.B)
10	1.0Vp-p (REC/P.B)	32	0.15Vp-p (P.B)
12	2.2Vp-p (REC/P.B)	34	5.0Vp-p (REC/P.B)
14	0.3Vp-p (P.B)	39	5.0Vp-p (REC/P.B)
20	0.8Vp-p (P.B)	40	0.5Vp-p (REC/P.B)
23	0.4Vp-p (REC/P.B)	41	0.4Vp-p (P.B)
24, 26	0.6Vp-p (REC/P.B)	42	1.0Vp-p (REC)
27	0.8Vp-p (REC)	43	0.4Vp-p (P.B)
28	0.6Vp-p (REC/P.B)	46	0.1Vp-p (REC/P.B)
29	0.5Vp-p (REC/P.B)	48	5.0Vp-p (REC/P.B)
30	0.2Vp-p (REC/P.B)		

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS
(SP MODE: PAL/NTSC)



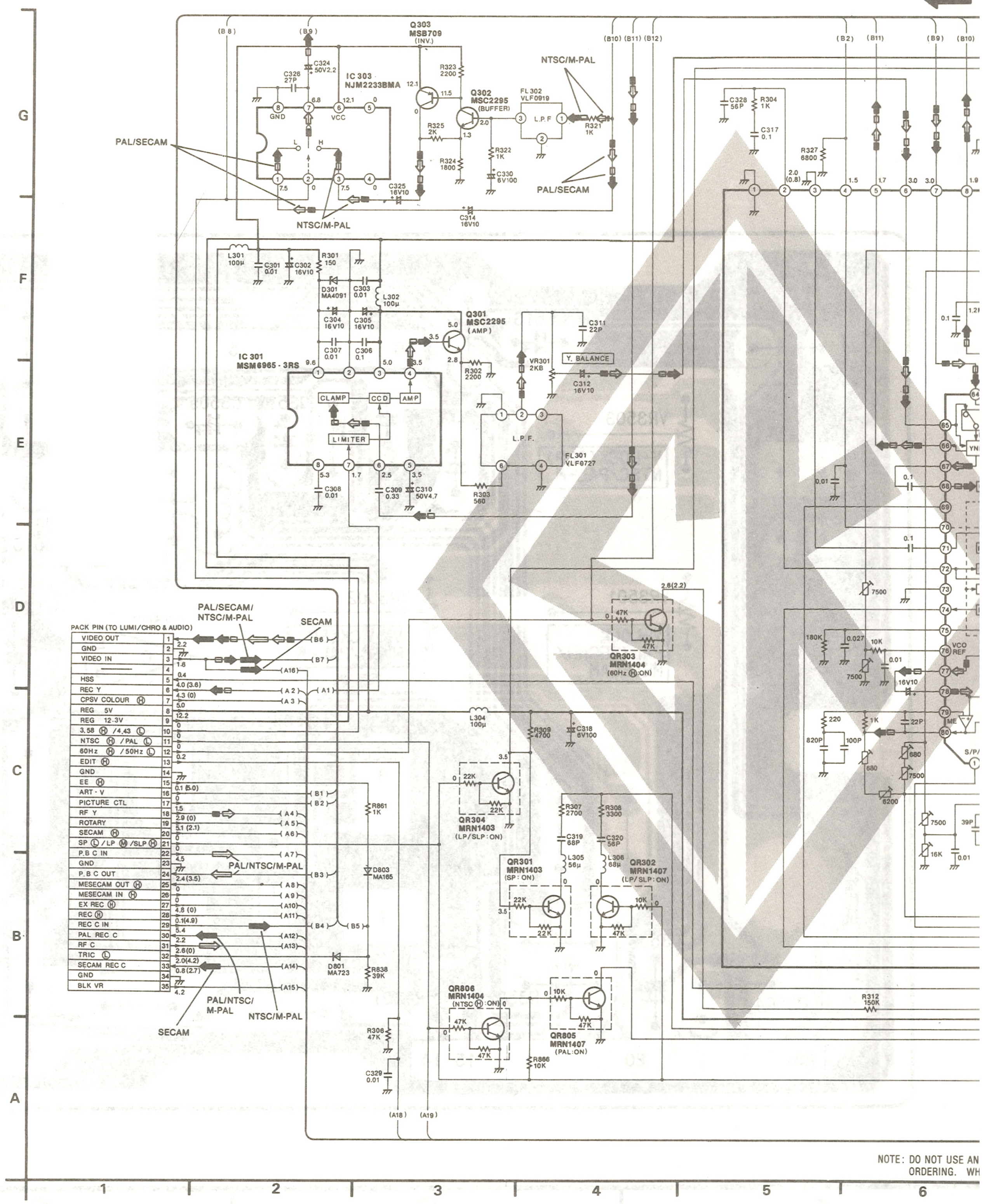
PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
1	2.2Vp-p (REC/P.B)	29	0.15Vp-p (REC) 0.6Vp-p (P.B) (NTSC)
3	1.0Vp-p (PAL) 0.5Vp-p (NTSC) (REC/P.B)	30	0.7Vp-p (PAL) 1.0Vp-p (NTSC) (REC)
4	0.15Vp-p (REC/P.B)	31	0.3Vp-p (P.B)
5	5.0Vp-p (REC/P.B)	33	0.6Vp-p (NTSC) (REC)
6	0.9Vp-p (REC)	35	0.4Vp-p (REC/P.B)
7	0.15Vp-p (P.B)		
12	0.1Vp-p (NTSC) (REC/P.B)		
18	1.2Vp-p (PAL) 1.0Vp-p (NTSC) (P.B)		
19	5.0Vp-p (REC/P.B)		
22	0.6Vp-p (P.B) 0.2Vp-p (NTSC REC)		
24	0.8Vp-p (P.B)		

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS
(SP MODE: SECAM)



PIN NO.	WAVE FORM	PIN NO.	WAVE FORM
1	2.2Vp-p (REC/P.B)	31	0.3Vp-p (P.B)
3	0.9Vp-p (REC/P.B)	33	0.4Vp-p (REC)
4	0.15Vp-p (REC/P.B)	35	0.4Vp-p (REC/P.B)
5	5.0Vp-p (REC/P.B)		
6	0.9Vp-p (REC)		
7	0.15Vp-p (P.B)		
18	1.0Vp-p (P.B)		
19	5.0Vp-p (REC/P.B)		
22	0.6Vp-p (P.B)		
24	0.8Vp-p (P.B)		
30	0.8Vp-p (REC)		

3-8. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM


G
F
E
D
C
B
A
1
2
3
4
5
6
(B8)
(B9)
(B10) (B11) (B12)
(B2)
(B11)
(B9)
(B10)
Q303
MSB709
(INV.)
IC 303
NJM2233BMA
C326
27P
C324
50V2.2
GND
VCC
L
H
6.8
12.1
7.5
0
R323
2200
Q302
MSC2295
(BUFFER)
R325
2K
R324
1800
R322
1K
C330
6V100
FL 302
VLF0919
L.P.F
R321
1K
NTSC/M-PAL
PAL/SECAM
C325
16V10
C314
16V10
C328
56P
R304
1K
C317
0.1
R327
6800
2.0
(0.8)
1.5
1.7
3.0
1.9
L301
100µ
C301
0.01
C302
16V10
R301
150
D301
MA4091
C303
0.01
L302
100µ
C304
16V10
C305
16V10
C307
0.01
C306
0.1
Q301
MSC2295
(AMP)
5.0
3.5
2.8
IC 301
MSM6965 - 3RS
9.6
CLAMP
CCD
AMP
LIMITER
5.3
1.7
2.5
C308
0.01
C309
0.33
C310
50V4.7
R302
2200
VR301
2KB
Y. BALANCE
C311
22P
C312
16V10
L.P.F.
FL301
VLF0727
R303
560
0.1
1.2
0.01
YN
VCO
REF
ME
S/P
180K
0.027
10K
7500
0.01
16V10
220
1K
22P
820P
100P
680
6200
16K
39P
PAL/SECAM/
NTSC/M-PAL
SECAM
PACK PIN (TO LUMI/CHRO & AUDIO)
2.2
1.6
0.4
4.0 (3.6)
4.3 (0)
5.0
12.2
0
0.2
0.1 (5.0)
1.5
2.9 (0)
5.1 (2.1)
4.5
2.4 (3.5)
4.8 (0)
0.1(4.9)
5.4
2.6(0)
2.0(4.2)
0.8(2.7)
4.2
(B6)
(B7)
(A16)
(A1)
(A2)
(A3)
(B1)
(B2)
(A4)
(A5)
(A6)
(A7)
PAL/NTSC/M-PAL
(B3)
(A8)
(A9)
(A10)
(A11)
(B4)
(B5)
(A12)
(A13)
(A14)
(A15)
PAL/NTSC/
M-PAL
NTSC/M-PAL
SECAM
R861
1K
D803
MA165
D801
MA723
R838
39K
R306
47K
C329
0.01
(A18)
(A19)
L304
100µ
R309
4700
C318
6V100
QR304
MRN1403
(LP/SLP : ON)
22K
R307
2700
R308
3300
C319
68P
C320
56P
L305
56µ
L306
68µ
QR301
MRN1403
(SP : ON)
QR302
MRN1407
(LP/SLP : ON)
10K
47K
2.8(2.2)
QR303
MRN1404
(60Hz Ⓗ:ON)
QR806
MRN1404
(NTSC Ⓗ : ON)
QR805
MRN1407
(PAL : ON)
R866
10K
R312
150K

VIDEO OUT	1	
GND	2	
VIDEO IN	3	
———	4	
HSS	5	
REC Y	6	
CPSV COLOUR Ⓗ	7	
REG 5V	8	
REG 12.3V	9	
3.58 Ⓗ /4.43 Ⓛ	10	
NTSC Ⓗ / PAL Ⓛ	11	
60Hz Ⓗ / 50Hz Ⓛ	12	
EDIT Ⓗ	13	
GND	14	
EE Ⓗ	15	
ART · V	16	
PICTURE CTL	17	
RF Y	18	
ROTARY	19	
SECAM Ⓗ	20	
SP Ⓛ / LP Ⓜ / SLP Ⓗ	21	
P.B C IN	22	
GND	23	
P.B C OUT	24	
MESECAM OUT Ⓗ	25	
MESECAM IN Ⓗ	26	
EX REC Ⓗ	27	
REC Ⓗ	28	
REC C IN	29	
PAL REC C	30	
RF C	31	
TRIC Ⓛ	32	
SECAM REC C	33	
GND	34	
BLK VR	35	

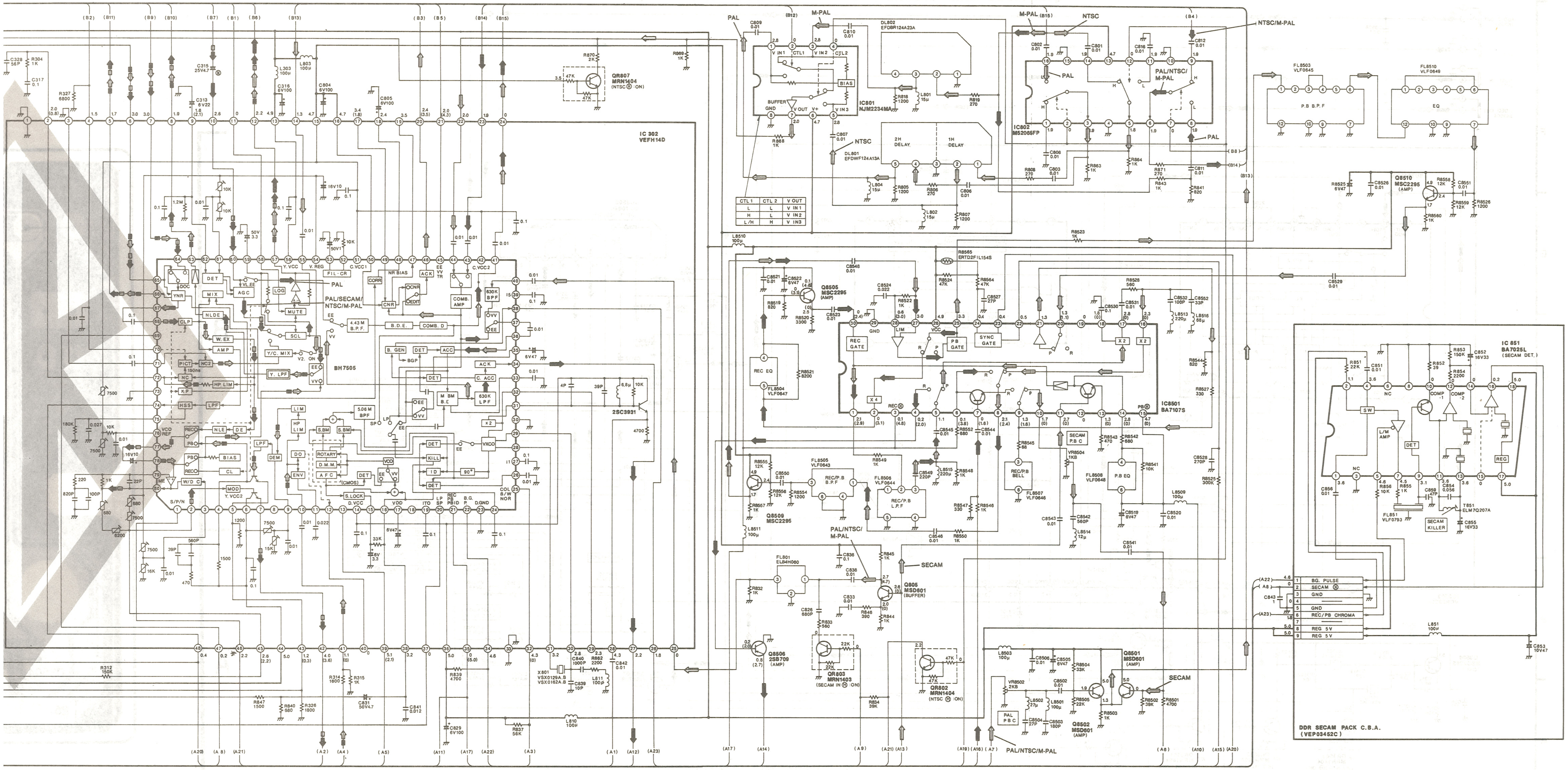
NOTE: DO NOT USE AN
ORDERING. WH

C DIAGRAM

LUMINANCE MAIN SIGNAL PATH IN REC MODE
CHROMINANCE MAIN SIGNAL PATH IN REC MODE

LUMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE
CHROMINANCE MAIN SIGNAL PATH IN PLAYBACK MODE

LUMINANCE & CHROMINANCE Section


IC 302
VEFH14D
BH7505
IC801
NJM2234MA
IC802
M52065FP
IC8501
BA7107S
IC 851
BA7025L
(SECAM DET.)
QR807
MRN1404
(NTSC Ⓗ ON)
2SC3931
Q8505
MSC2295
(AMP)
Q8509
MSC2295
Q8510
MSC2295
(AMP)
Q805
MSD601
(BUFFER)
Q8506
2SB709
(AMP)
QR803
MRN1403
(SECAM IN Ⓗ ON)
QR802
MRN1404
(NTSC Ⓗ ON)
Q8501
MSD601
(AMP)
Q8502
MSD601
(AMP)
DL802
EFDBR124A23A
DL801
EFDWF124A13A
2H DELAY
1H DELAY
FL8503
VLF0645
P.B B.P.F
FL8510
VLF0649
EQ
FL8504
VLF0647
REC EQ
FL8505
VLF0643
REC/P.B B.P.F
FL8506
VLF0644
REC/P.B L.P.F
FL8507
VLF0646
REC/P.B BELL
FL8508
VLF0648
P.B EQ
FL801
ELB4H060
FL851
VLF0793
T851
ELM7Q207A
R8565
ERTD2FIL154S
X801
VSX0129A.B
VSX0182A.B
PAL
M-PAL
NTSC
NTSC/M-PAL
PAL/NTSC/M-PAL
PAL/SECAM/NTSC/M-PAL
SECAM
SECAM P.B C
SECAM KILLER
PAL P.B C
REC GATE
P.B GATE
SYNC GATE
LIM
DET
COMP
REG
L/M AMP
SW
BUFFER
GND
V IN1
CTL1
V IN2
CTL2
V IN3
V OUT
BIAS
CTL 1
CTL 2
V OUT
L
L
V IN 1
H
L
V IN 2
L/H
H
V IN 3
YNR
DOC
MIX
NLDE
CLP
W.EX
AMP
PICT
NC2
NC
KP
HSS
LPF
HP.LIM
REC
PB
VCO REF
BIAS
CL
W/D C
MOD
S/P/N
DEM
DO
ENV
ROTARY
D.M.M.
A.F.C
(CMOS)
S.LOCK
D.VCC
VDD
ITO
LP SP
REC PB ID
B.G. P.
D.GND
COL B/W NOR
VXCO
KILL
ID
90°
DET
X2
ACK
C. ACC
630K LPF
630K BPF
M BM B.C
5.06 M BPF
S.BM
B.GEN
BGP
ACC
COMB. D
B.D.E.
COMB. AMP
CNR
CORR
NR BIAS
FIL-CR
C.VCC1
C.VCC2
Y.VCC
V.REG
Y.VCC2
AGC
V.LEE
LOG
MUTE
SCL
Y/C. MIX
Y. LPF
4.43 M B.P.F.
EE
VV
LIM
HP
DDR SECAM PACK C.B.A.
(VEP03452C)
BG. PULSE
SECAM Ⓗ
GND
GND
REC/PB CHROMA
REG 5V
REG 5V
(B2)
(B11)
(B9)
(B10)
(B7)
(B1)
(B6)
(B13)
(B3)
(B5)
(B14)
(B15)
(B12)
(B4)
(B8)
(A20)
(A 8)
(A21)
(A2)
(A4)
(A5)
(A11)
(A17)
(A22)
(A3)
(A1)
(A12)
(A23)
(A14)
(A9)
(A13)
(A19)
(A16)
(A7)
(A10)
(A15)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

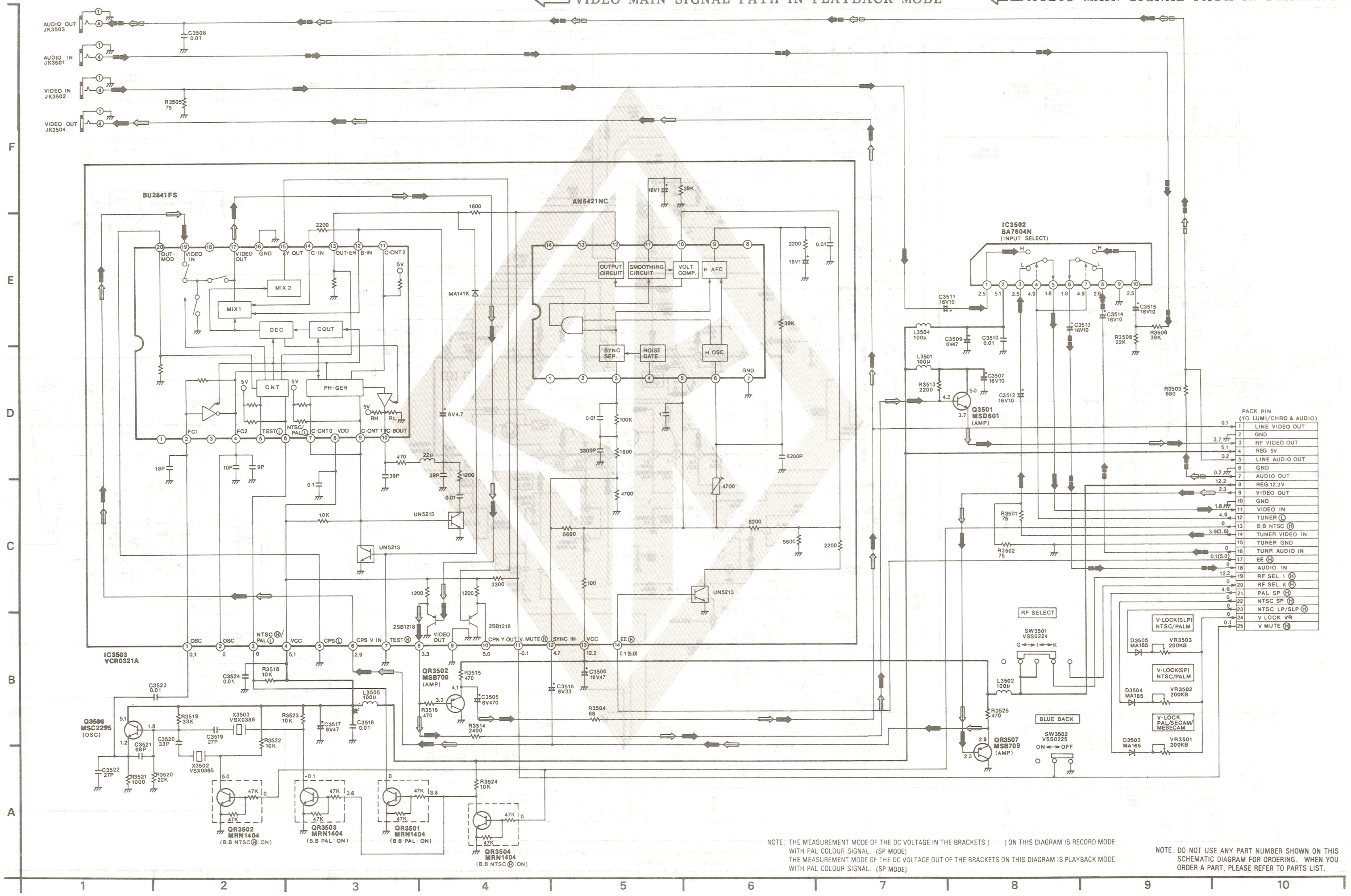
5 6 7 8 9 10 11 12 13 14 15 16 17 18

Next Page:
I/O PACK Section

3-9. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM

◀ VIDEO MAIN SIGNAL PATH IN REC MODE
◁ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

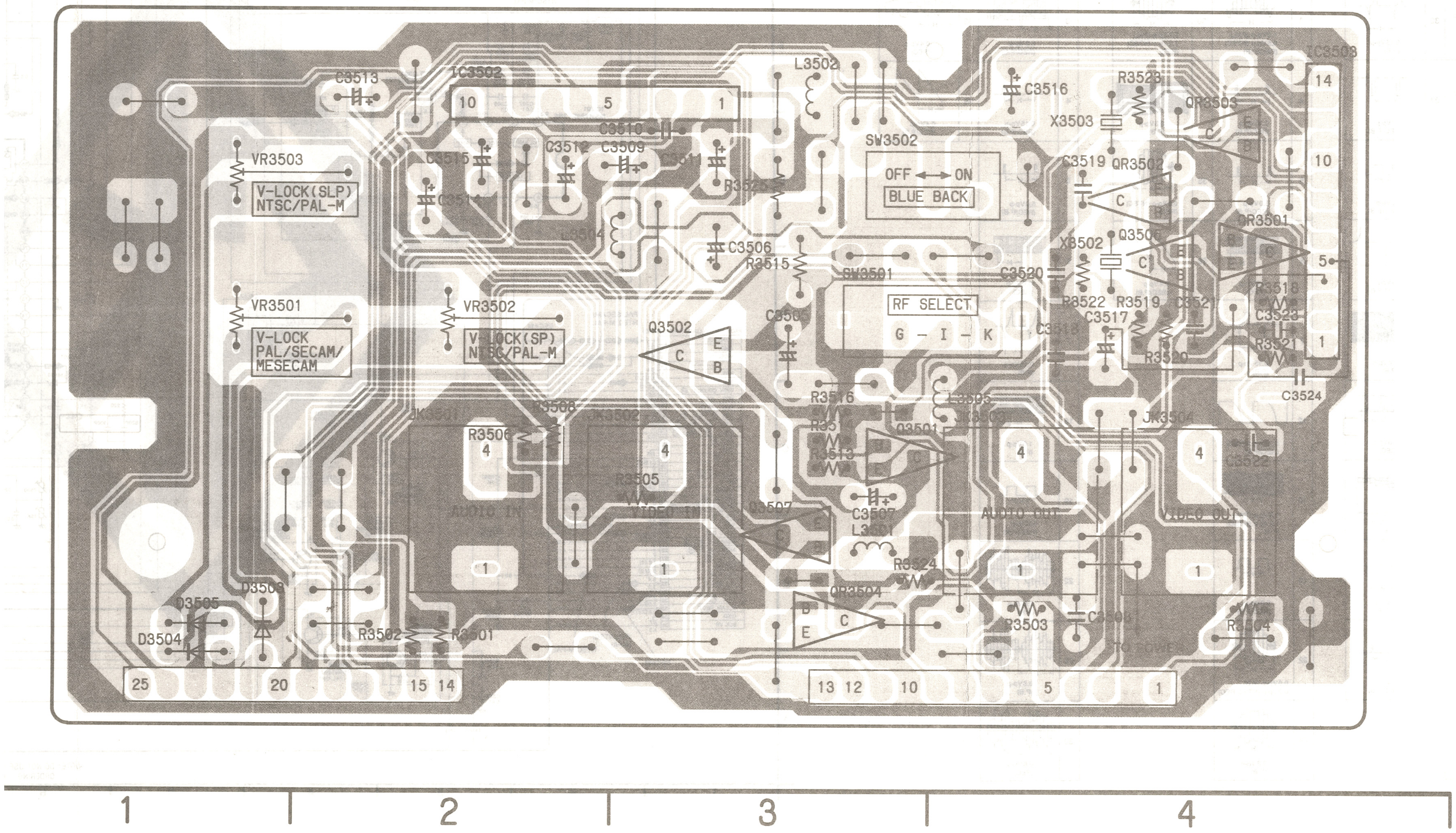
◀ AUDIO MAIN SIGNAL PATH IN REC MODE
◁ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE


AUDIO OUT JK3503
AUDIO IN JK3501
VIDEO IN JK3502
VIDEO OUT JK3504
C3508 0.01
R3505 75
BU2841FS
AN5421NC
IC3503 VCR0321A
IC3502 BA7604N (INPUT SELECT)
OUT-MOD
VIDEO IN
VIDEO OUT
GND
Y-OUT
C-IN
OUT-EN
B-IN
C-CNT2
MIX 2
MIX1
DEC
COUT
CNT
PH-GEN
FC1
FC2
TEST
NTSC/PAL
C-CNT0
VDD
C-CNT 1
C-BOUT
OUTPUT CIRCUIT
SMOOTHING CIRCUIT
VOLT. COMP.
H. AFC
SYNC SEP.
NOISE GATE
H. OSC.
MA141K
6V4.7
UN5213
2SB1218
OSC
NTSC Ⓗ/PAL Ⓛ
VCC
CPS Ⓛ
CPS V IN
TEST Ⓢ
VIDEO OUT
CPN Y OUT
V. MUTE Ⓗ
SYNC IN
EE Ⓗ
Q3506 MSC2295 (OSC)
X3503 VSX0386
X3502 VSX0365
L3505 100μ
QR3502 MSB709 (AMP)
QR3502 MRN1404 (B.B NTSC Ⓗ : ON)
QR3503 MRN1404 (B.B PAL : ON)
QR3501 MRN1404 (B.B PAL : ON)
QR3504 MRN1404 (B.B NTSC Ⓗ : ON)
Q3501 MSD601 (AMP)
QR3507 MSB709 (AMP)
L3504 100μ
L3501 100μ
L3502 100μ
RF SELECT
SW3501 VSS0224
BLUE BACK
SW3502 VSS0225
ON ◀▶ OFF
V-LOCK(SLP) NTSC/PALM
V-LOCK(SP) NTSC/PALM
V-LOCK PAL/SECAM/MESECAM
D3505 MA165
D3504 MA165
D3503 MA165
VR3503 200KB
VR3502 200KB
VR3501 200KB
R3503 680
R3506 39K
R3508 22K
PACK PIN (TO LUMI/CHRO & AUDIO)
1 LINE VIDEO OUT
2 GND
3 RF VIDEO OUT
4 REG 5V
5 LINE AUDIO OUT
6 GND
7 AUDIO OUT
8 REG 12.3V
9 VIDEO OUT
10 GND
11 VIDEO IN
12 TUNER Ⓛ
13 B.B NTSC Ⓗ
14 TUNER VIDEO IN
15 TUNER GND
16 TUNR AUDIO IN
17 EE Ⓗ
18 AUDIO IN
19 RF SEL. I Ⓗ
20 RF SEL. K Ⓗ
21 PAL SP Ⓗ
22 NTSC SP Ⓗ
23 NTSC LP/SLP Ⓗ
24 V LOCK VR
25 V MUTE Ⓗ
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

INPUT/OUTPUT PACK C.B.A. (VEP03806A)


C3513
IC3502
10
5
1
L3502
C3516
R3523
IC3503
14
QR3503
X3503
C3510
C3515
C3512
C3509
C3511
SW3502
OFF ←→ ON
BLUE BACK
C3519
QR3502
10
VR3503
V-LOCK(SLP)
NTSC/PAL-M
C3514
R3525
L3504
C3506
R3515
X3502
Q3506
QR3501
SW3501
C3520
5
VR3501
V-LOCK
PAL/SECAM/
MESECAM
VR3502
V-LOCK(SP)
NTSC/PAL-M
RF SELECT
G – I – K
R3522
R3519
C3521
R3518
C3523
C3517
Q3502
C3505
C3518
R3521
R3520
1
C3524
R3516
L3505
JK3501
R3508
JK3502
R3514
Q3501
JK3503
JK3504
R3506
R3513
4
C3522
R3505
AUDIO IN
VIDEO IN
Q3507
C3507
AUDIO OUT
VIDEO OUT
L3501
R3524
D3503
QR3504
D3505
R3503
C3508
R3504
D3504
R3502
R3501
TO POWER
25
20
15 14
13 12
10
1
E
C
B
1
2
3
4

INPUT/OUTPUT PACK C.B.A.

Transistor	
Q3501	A-3
Q3502	B-3
Q3506	B-4
Q3507	A-3

Transistor & Resistor	
QR3501	B-4
QR3502	B-4
QR3503	B-4
QR3504	A-3

Integrated Circuit	
IC3502	B-2
IC3503	C-4

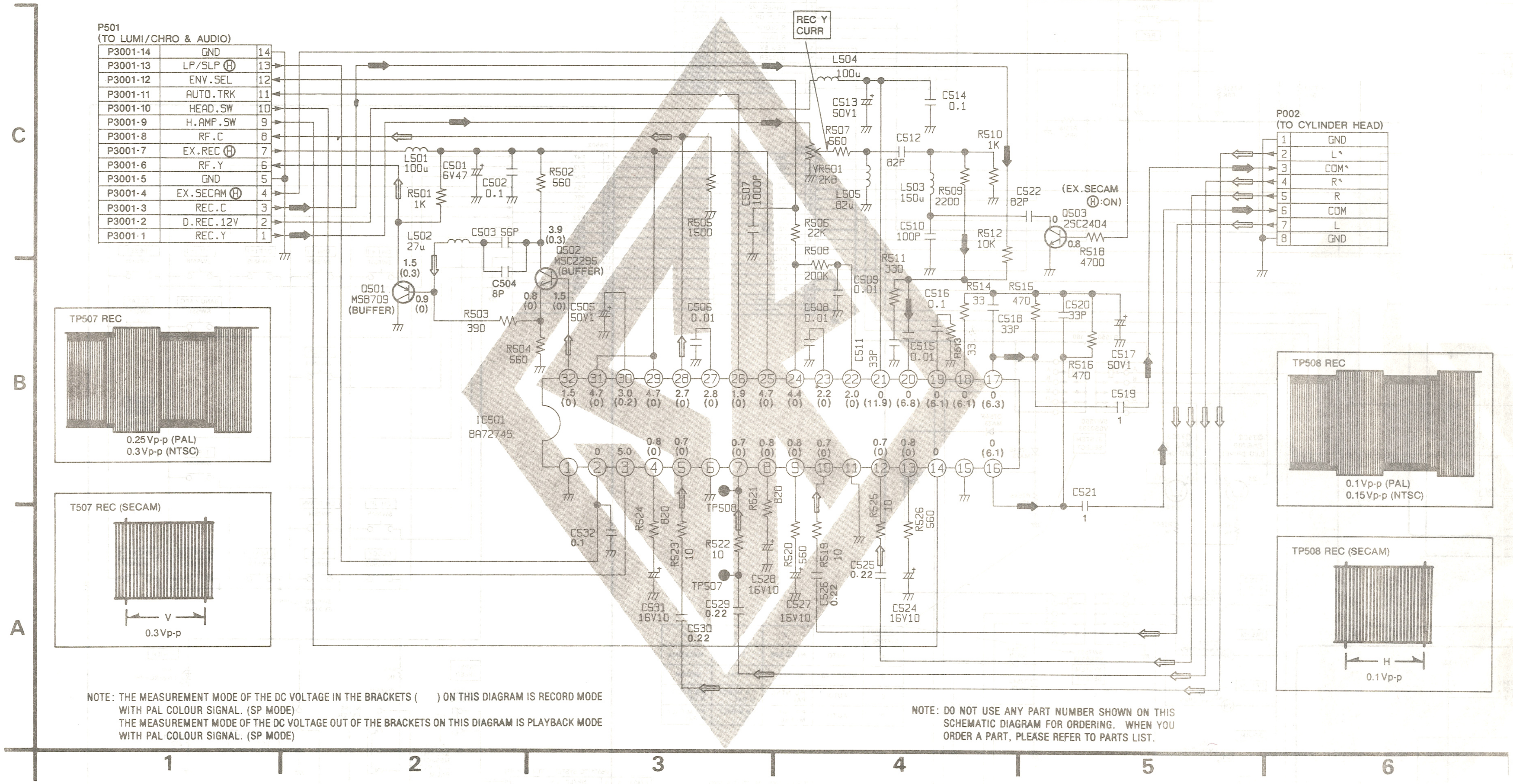
Adjustment	
VR3501	B-1
VR3502	B-2
VR3503	B-1

ADDRESS INFORMATION

3-11. HEAD AMP SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE

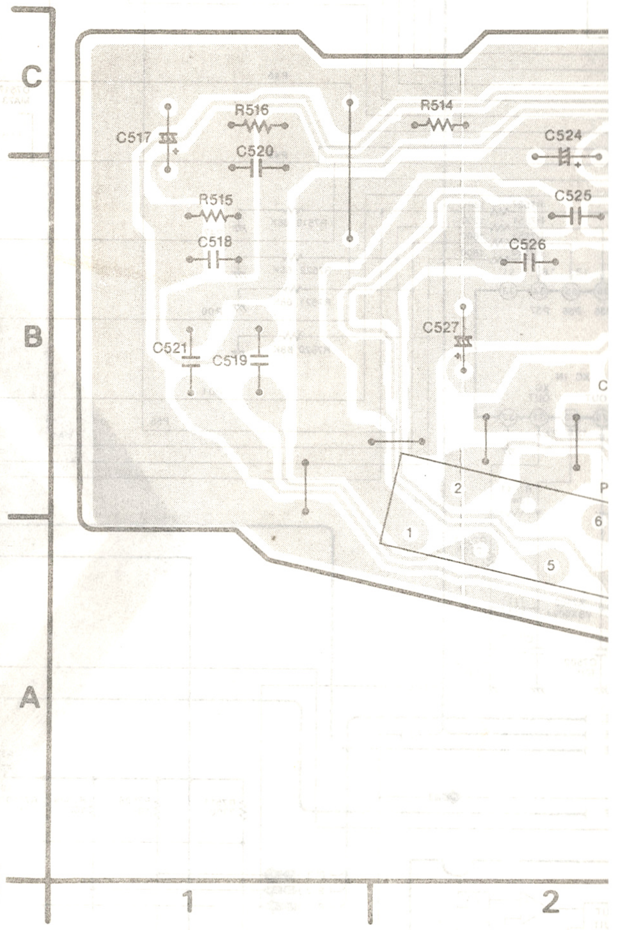
MAIN SIGNAL PATH IN PLAYBACK MODE


P501
(TO LUMI/CHRO & AUDIO)
P3001-14 GND 14
P3001-13 LP/SLP Ⓗ 13
P3001-12 ENV.SEL 12
P3001-11 AUTO.TRK 11
P3001-10 HEAD.SW 10
P3001-9 H.AMP.SW 9
P3001-8 RF.C 8
P3001-7 EX.REC Ⓗ 7
P3001-6 RF.Y 6
P3001-5 GND 5
P3001-4 EX.SECAM Ⓗ 4
P3001-3 REC.C 3
P3001-2 D.REC.12V 2
P3001-1 REC.Y 1
REC Y CURR
L504 100u
C513 50V1
C514 0.1
R507 560
VR501 2KB
C512 82P
R510 1K
L505 82u
L503 150u
R509 2200
C522 82P
(EX.SECAM Ⓗ:ON)
Q503 2SC2404
R518 4700
R512 10K
C510 100P
R511 330
R506 22K
R508 200K
C509 0.01
L501 100u
C501 6V47
C502 0.1
R502 560
R501 1K
L502 27u
C503 56P
C504 8P
Q501 MS8709 (BUFFER)
Q502 MSC2295 (BUFFER)
R503 390
R504 560
C505 50V1
R505 1500
C507 1000P
C506 0.01
C508 0.01
C511 33P
C515 0.01
C516 0.1
R513 33
R514 33
R515 470
C518 33P
C520 33P
R516 470
C517 50V1
C519 1
C521 1
IC501 BA7274S
C532 0.1
R524 820
R523 10
R522 10
R521 820
TP508
TP507
C528 16V10
C529 0.22
C530 0.22
C531 16V10
R520 560
R519 10
C526 0.22
C527 16V10
R525 10
C525 0.22
R526 560
C524 16V10
P002
(TO CYLINDER HEAD)
1 GND
2 L'
3 COM'
4 R'
5 R
6 COM
7 L
8 GND
TP507 REC
0.25Vp-p (PAL)
0.3Vp-p (NTSC)
T507 REC (SECAM)
V
0.3Vp-p
TP508 REC
0.1Vp-p (PAL)
0.15Vp-p (NTSC)
TP508 REC (SECAM)
H
0.1Vp-p
C
B
A
1
2
3
4
5
6

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

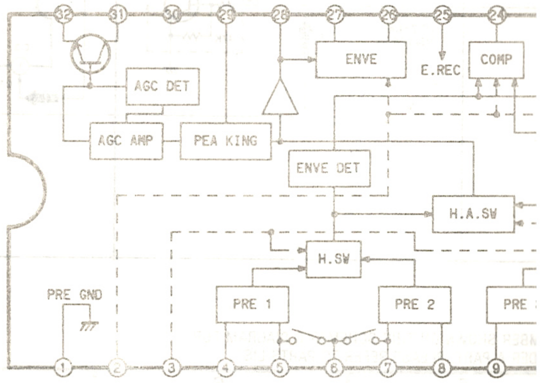
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

2. HEAD AMP C.B.A. (VEP0516


C
B
A
C517
R516
C520
R514
C524
R515
C518
C525
C526
C527
C621
C519
1
2

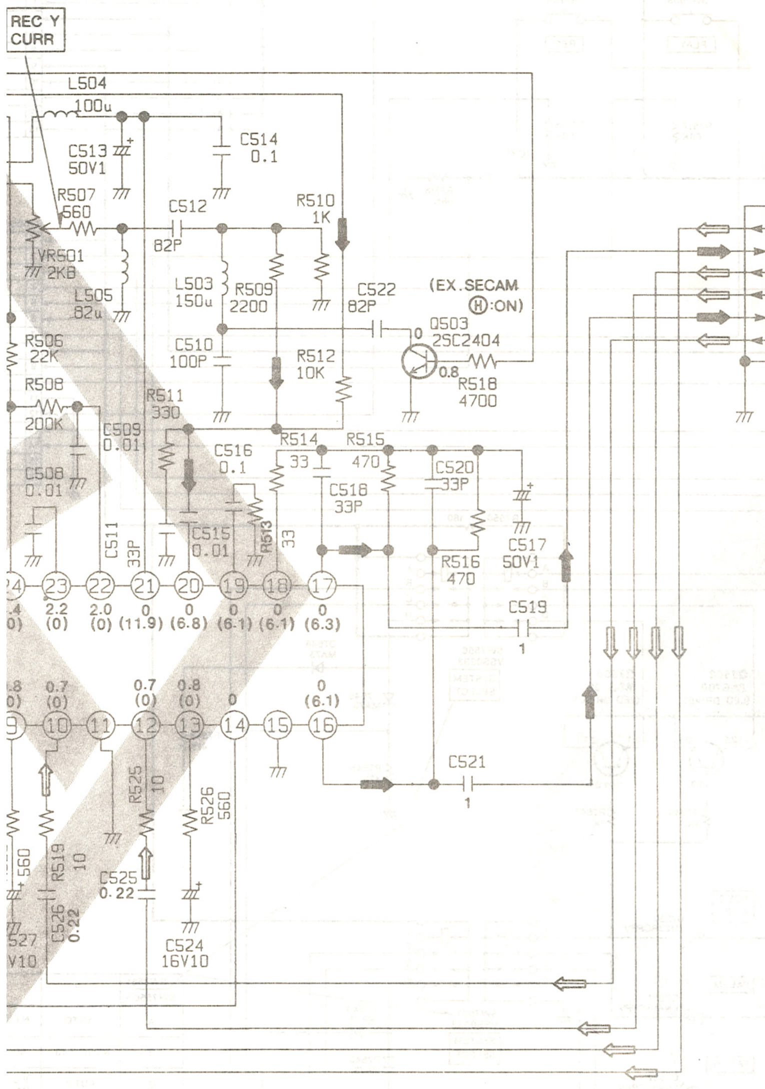
IC BLOCK

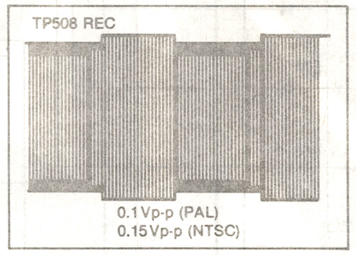
IC501 (BA7274S)

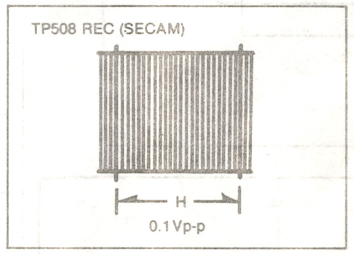

AGC DET
AGC AMP
PEA KING
ENVE
E.REC
COMP
ENVE DET
H.A.SW
H.SW
PRE GND
PRE 1
PRE 2
PRE

2. HEAD AMP C.B.A. (VEP05160B)

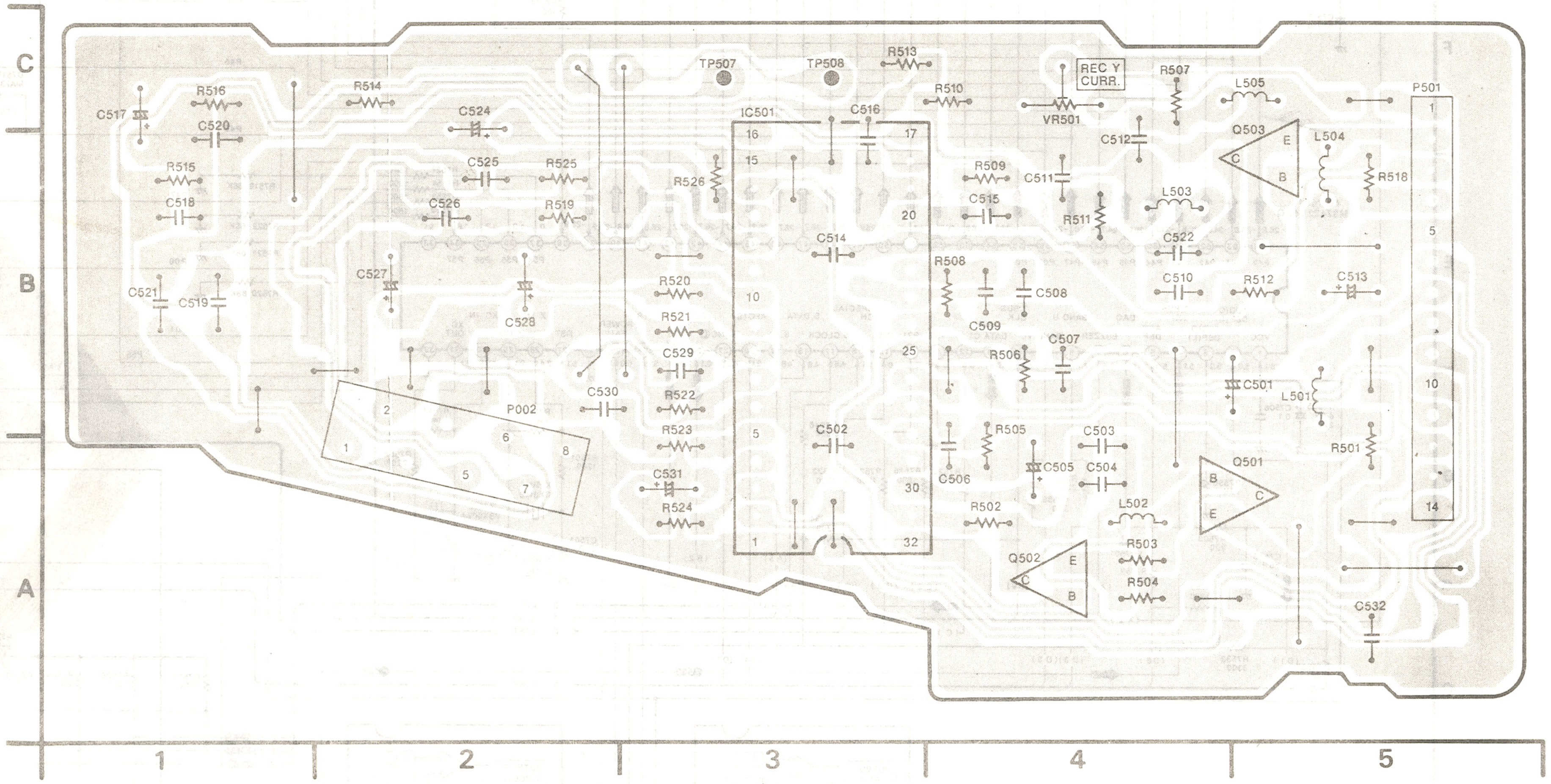
AL PATH IN REC MODE
AL PATH IN PLAYBACK MODE


REC Y CURR
L504 100u
C513 50V1
C514 0.1
R507 560
C512 82P
R510 1K
VR501 2KB
L505 82u
L503 150u
R509 2200
C522 82P
(EX.SECAM Ⓗ:ON)
Q503 2SC2404
R518 4700
R506 22K
C510 100P
R512 10K
R508 200K
R511 330
C509 0.01
C508 0.01
C516 0.1
R514 33
R515 470
C518 33P
C520 33P
R516 470
C517 50V1
C511 33P
C515 0.01
R513 33
C519 1
C521 1
R525 10
R526 560
R519 10
C525 0.22
C526 0.22
C524 16V10
P002 (TO CYLINDER HEAD)
1 GND
2 L'
3 COM'
4 R'
5 R
6 COM
7 L
8 GND



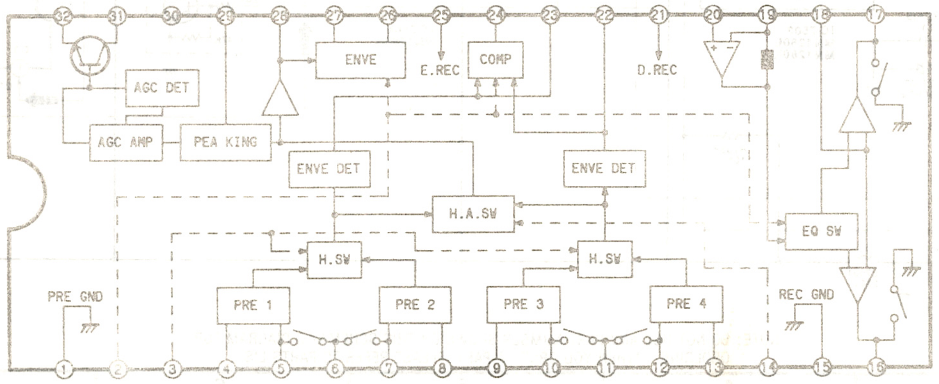


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


C
B
A
1
2
3
4
5
TP507
TP508
IC501
REC Y CURR.
VR501
P501
P002
Q501
Q502
Q503
L501
L502
L503
L504
L505

IC BLOCK

IC501 (BA7274S)

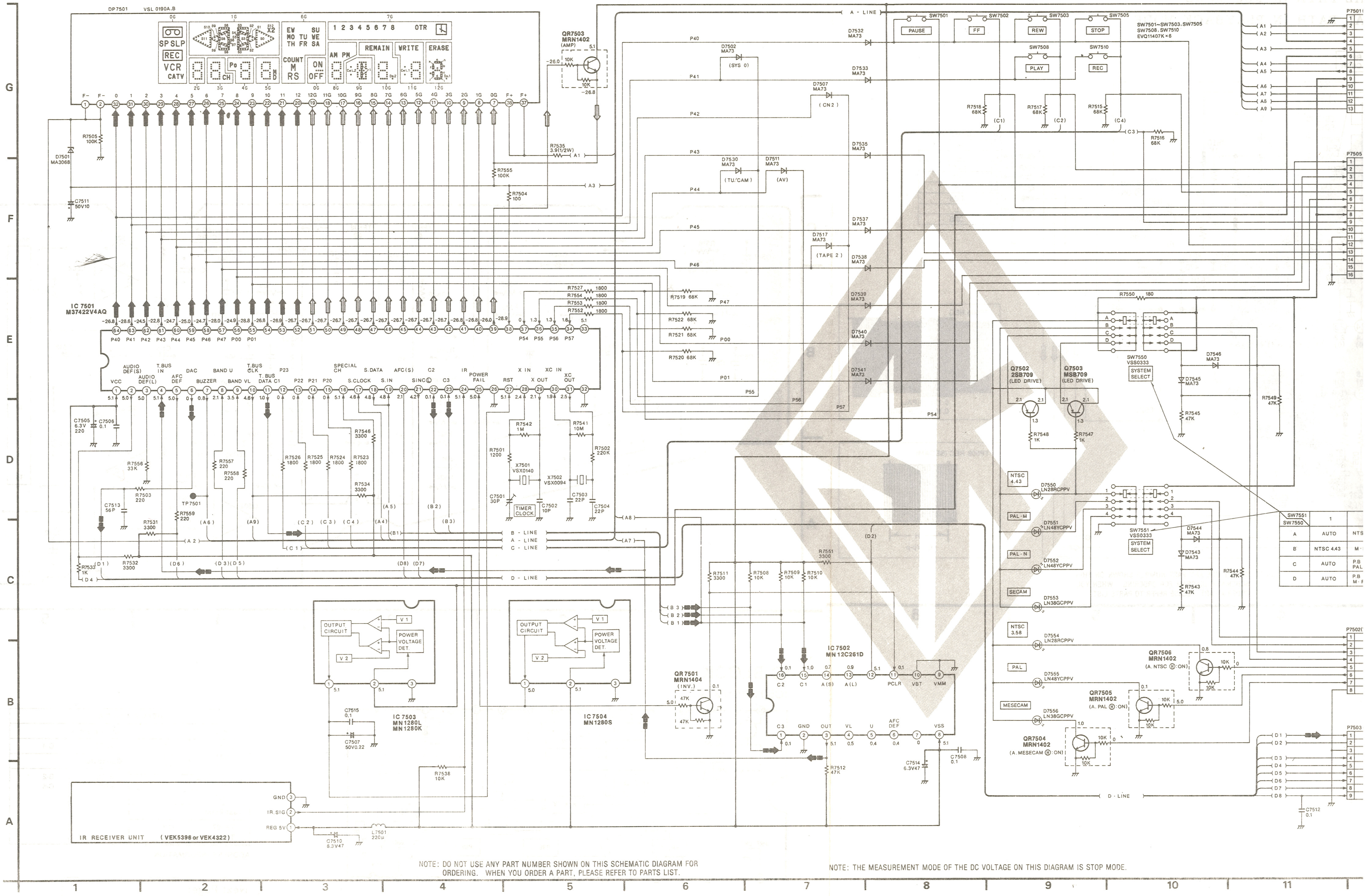

AGC DET
AGC AMP
PEA KING
ENVE
E.REC
COMP
D.REC
ENVE DET
H.A.SW
H.SW
EQ SW
PRE GND
PRE 1
PRE 2
PRE 3
PRE 4
REC GND

HEAD AMP C.B.A.			
Transistor		Adjustment	
Q501 Q502 Q503	A-5 A-4 B-5	VR501	C-4
		Connector	
Integrated Circuit		P002 P501	B-2 C-5
IC501	C-3		
Test Point			
TP507 TP508	C-3 C-3		

ADDRESS INFORMATION

Next Page:
TIMER & OPERATION Section

3-13. TIMER & OPERATION SCHEMATIC DIAGRAM

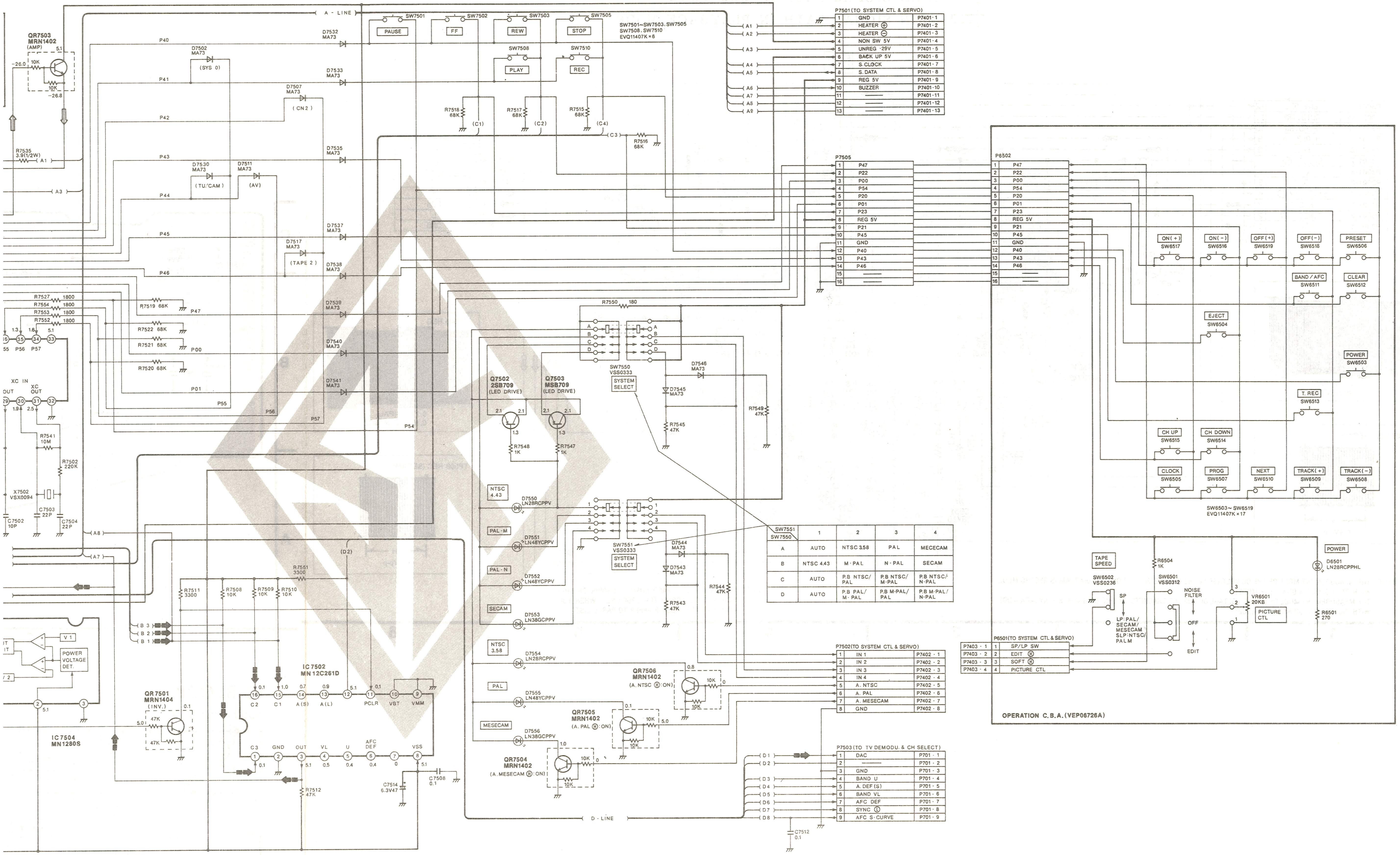

DP7501 VSL 0190A.B
IC 7501 M37422V4AQ
QR7503 MRN1402 (AMP)
SW7501~SW7503, SW7505 SW7508, SW7510 EVQ11407K × 6
PAUSE
FF
REW
STOP
PLAY
REC
A - LINE
B - LINE
C - LINE
D - LINE
P7501
P7505
P7502
P7503
Q7502 2SB709 (LED DRIVE)
Q7503 MSB709 (LED DRIVE)
SW7550 VSS0333 SYSTEM SELECT
SW7551 VSS0333 SYSTEM SELECT
NTSC 4.43
PAL-M
PAL-N
SECAM
NTSC 3.58
PAL
MESECAM
QR7506 MRN1402 (A. NTSC Ⓗ:ON)
QR7505 MRN1402 (A. PAL Ⓗ:ON)
QR7504 MRN1402 (A. MESECAM Ⓗ:ON)
IC 7502 MN12C261D
QR7501 MRN1404 (INV.)
IC 7503 MN1280L MN1280K
IC 7504 MN1280S
OUTPUT CIRCUIT
POWER VOLTAGE DET.
IR RECEIVER UNIT (VEK5396 or VEK4322)
GND
IR.SIG
REG 5V
TIMER CLOCK
X7501 VSX0140
X7502 VSX0094
TP7501
D7501 MA3068
D7502 MA73 (SYS 0)
D7507 MA73 (CN2)
D7530 MA73 (TU/CAM)
D7511 MA73 (AV)
D7517 MA73 (TAPE 2)

SW7551 / SW7550	1	
A	AUTO	NTS
B	NTSC 4.43	M
C	AUTO	P.B PAL
D	AUTO	P.B M·F

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NV-J700AM

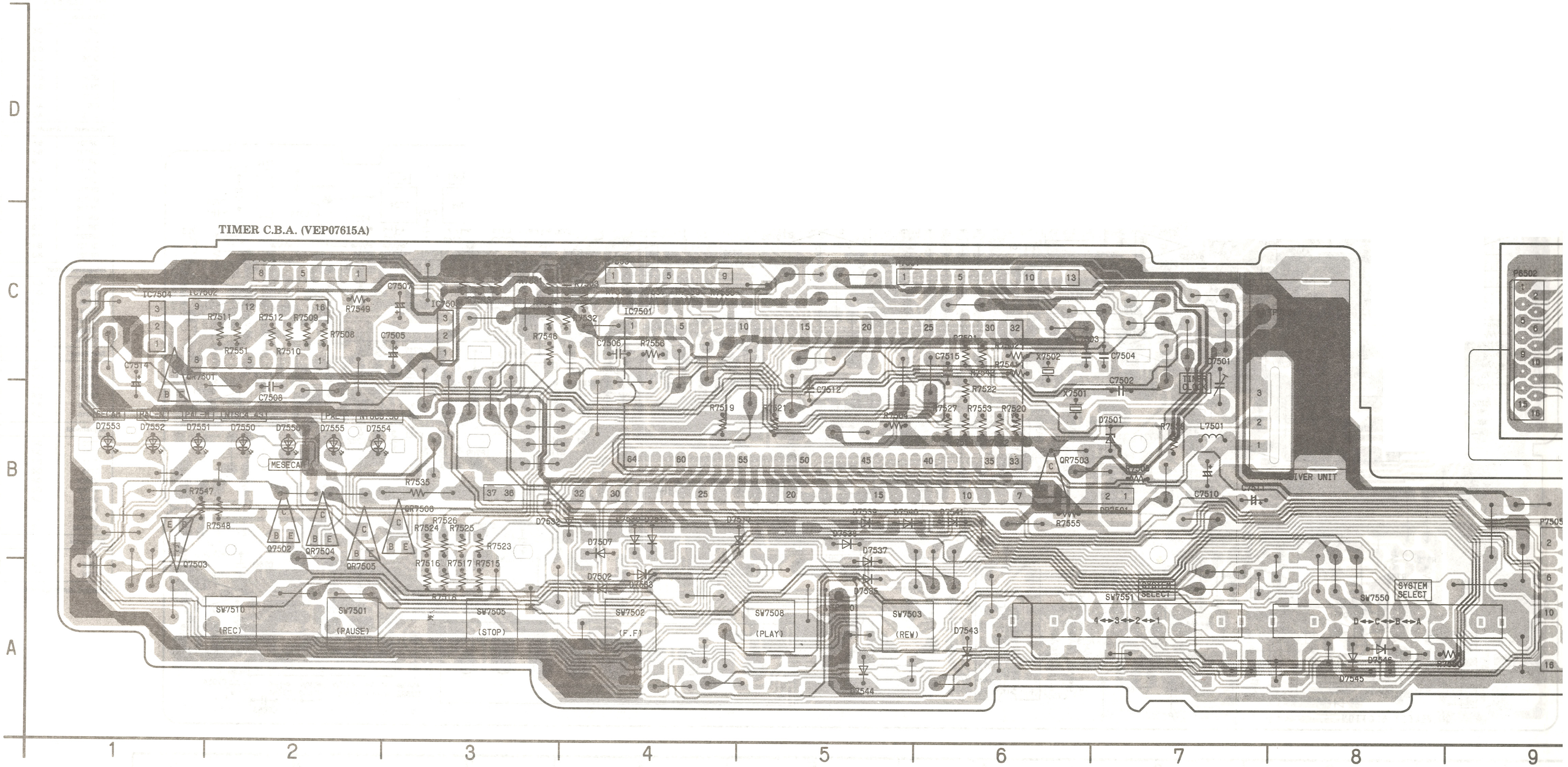

A - LINE
D - LINE
SW7501 PAUSE
SW7502 FF
SW7503 REW
SW7505 STOP
SW7508 PLAY
SW7510 REC
SW7501~SW7503, SW7505
SW7508, SW7510
EVQ11407K×6
QR7503 MRN1402 (AMP)
QR7501 MRN1404 (INV.)
QR7504 MRN1402 (A. MESECAM Ⓗ:ON)
QR7505 MRN1402 (A. PAL Ⓗ:ON)
QR7506 MRN1402 (A. NTSC Ⓗ:ON)
Q7502 2SB709 (LED DRIVE)
Q7503 MSB709 (LED DRIVE)
IC7502 MN12C261D
IC7504 MN1280S
POWER VOLTAGE DET.
X7502 VSX0094
SW7550 VSS0333 SYSTEM SELECT
SW7551 VSS0333 SYSTEM SELECT
NTSC 4.43
PAL-M
PAL-N
SECAM
NTSC 3.58
PAL
MESECAM
P7501 (TO SYSTEM CTL & SERVO)
1 GND P7401·1
2 HEATER ⊕ P7401·2
3 HEATER ⊖ P7401·3
4 NON SW 5V P7401·4
5 UNREG -29V P7401·5
6 BACK UP 5V P7401·6
7 S.CLOCK P7401·7
8 S.DATA P7401·8
9 REG 5V P7401·9
10 BUZZER P7401·10
11 P7401·11
12 P7401·12
13 P7401·13
P7505 / P6502
1 P47
2 P22
3 P00
4 P54
5 P20
6 P01
7 P23
8 REG 5V
9 P21
10 P45
11 GND
12 P40
13 P43
14 P46
15
16
P7502 (TO SYSTEM CTL & SERVO)
1 IN 1 P7402·1
2 IN 2 P7402·2
3 IN 3 P7402·3
4 IN 4 P7402·4
5 A. NTSC P7402·5
6 A. PAL P7402·6
7 A. MESECAM P7402·7
8 GND P7402·8
P7503 (TO TV DEMODU & CH SELECT)
1 DAC P701·1
2 P701·2
3 GND P701·3
4 BAND U P701·4
5 A. DEF (S) P701·5
6 BAND VL P701·6
7 AFC DEF P701·7
8 SYNC Ⓛ P701·8
9 AFC S-CURVE P701·9
P6501 (TO SYSTEM CTL & SERVO)
P7403·1 1 SP/LP SW
P7403·2 2 EDIT Ⓗ
P7403·3 3 SOFT Ⓗ
P7403·4 4 PICTURE CTL
ON(+) SW6517
ON(−) SW6516
OFF(+) SW6519
OFF(−) SW6518
PRESET SW6506
BAND/AFC SW6511
CLEAR SW6512
EJECT SW6504
POWER SW6503
T. REC SW6513
CH UP SW6515
CH DOWN SW6514
CLOCK SW6505
PROG SW6507
NEXT SW6510
TRACK(+) SW6509
TRACK(−) SW6508
SW6503~SW6519
EVQ11407K×17
TAPE SPEED SW6502 VSS0236
SP
LP:PAL/SECAM/MESECAM SLP:NTSC/PALM
NOISE FILTER SW6501 VSS0312
OFF
EDIT
VR6501 20KB PICTURE CTL
POWER D6501 LN28RCPPHL
OPERATION C.B.A. (VEP06726A)

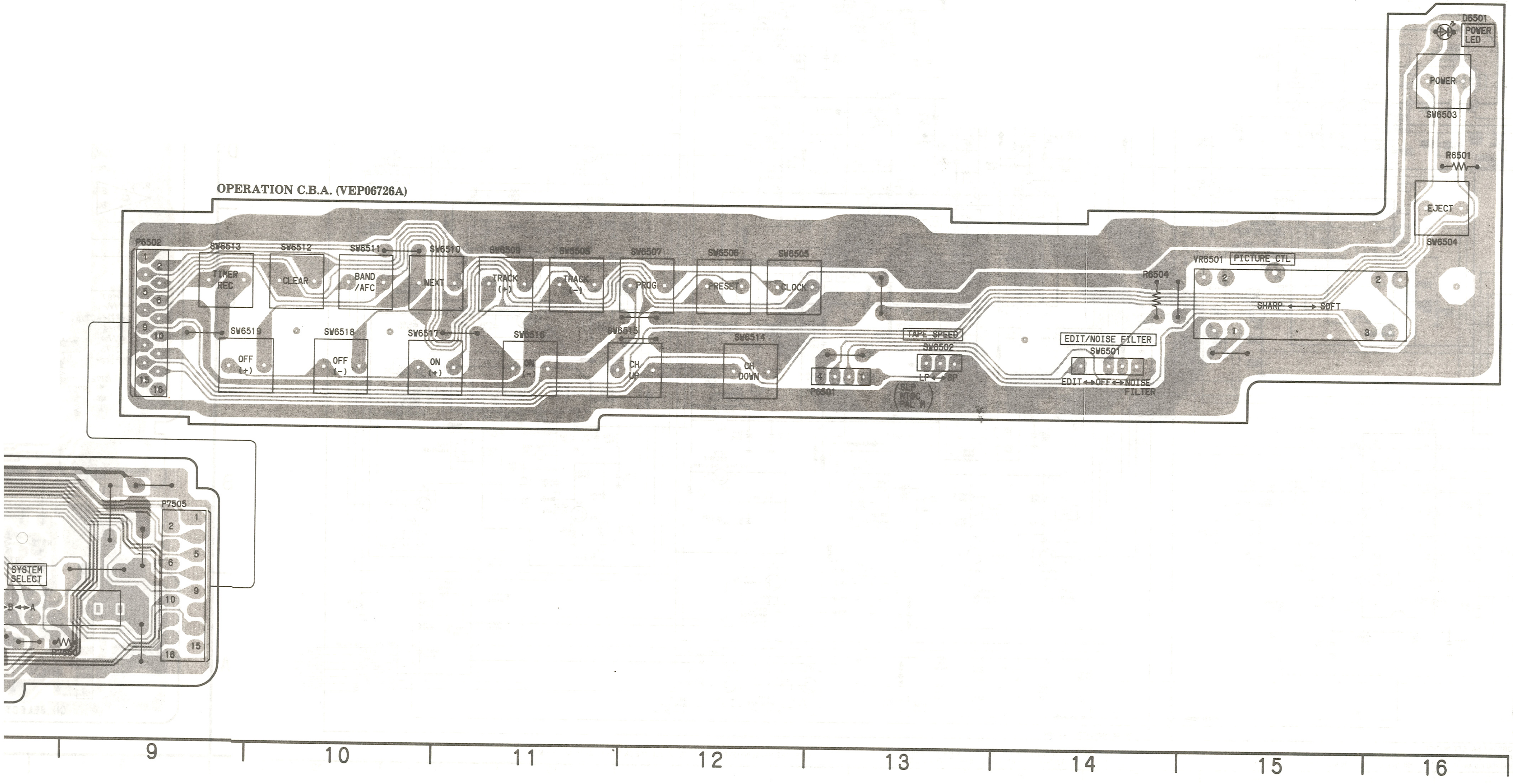
SW7551 / SW7550	1	2	3	4
A	AUTO	NTSC 3.58	PAL	MECECAM
B	NTSC 4.43	M·PAL	N·PAL	SECAM
C	AUTO	P.B NTSC/ PAL	P.B NTSC/ M·PAL	P.B NTSC/ N·PAL
D	AUTO	P.B PAL/ M·PAL	P.B M·PAL/ PAL	P.B M·PAL/ N·PAL

BER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
ER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-14. TIMER C.B.A. (VEP07615A) & OPERATION C.B.A. (VEP06726A)


TIMER C.B.A. (VEP07615A)
D
C
B
A
1
2
3
4
5
6
7
8
9
IC7504
IC7502
IC7503
IC7501
QR7501
QR7503
QR7504
QR7505
QR7506
Q7502
R7511
R7512
R7509
R7508
R7551
R7510
R7549
R7532
R7546
R7556
R7519
R7521
R7504
R7527
R7553
R7520
R7522
R7541
R7547
R7548
R7535
R7524
R7525
R7526
R7523
R7516
R7517
R7515
R7518
R7555
C7514
C7508
C7507
C7505
C7506
C7512
C7515
C7504
C7502
C7503
C7510
X7502
X7501
L7501
D7553
D7552
D7551
D7550
D7555
D7554
D7503
D7501
D7532
D7507
D7502
D7533
D7537
D7535
D7543
D7544
D7545
D7546
SECAM
PAL-N
PAL-M
NTSC4.43
PAL
NTSC3.58
MESECAM
TIMER CLOCK
SW7510
(REC)
SW7501
(PAUSE)
SW7505
(STOP)
SW7502
(F.F)
SW7508
(PLAY)
SW7503
(REW)
SW7551
SYSTEM SELECT
SW7550
SYSTEM SELECT
4↔3↔2↔1
D↔C↔B↔A
RECEIVER UNIT
P6502
P7505

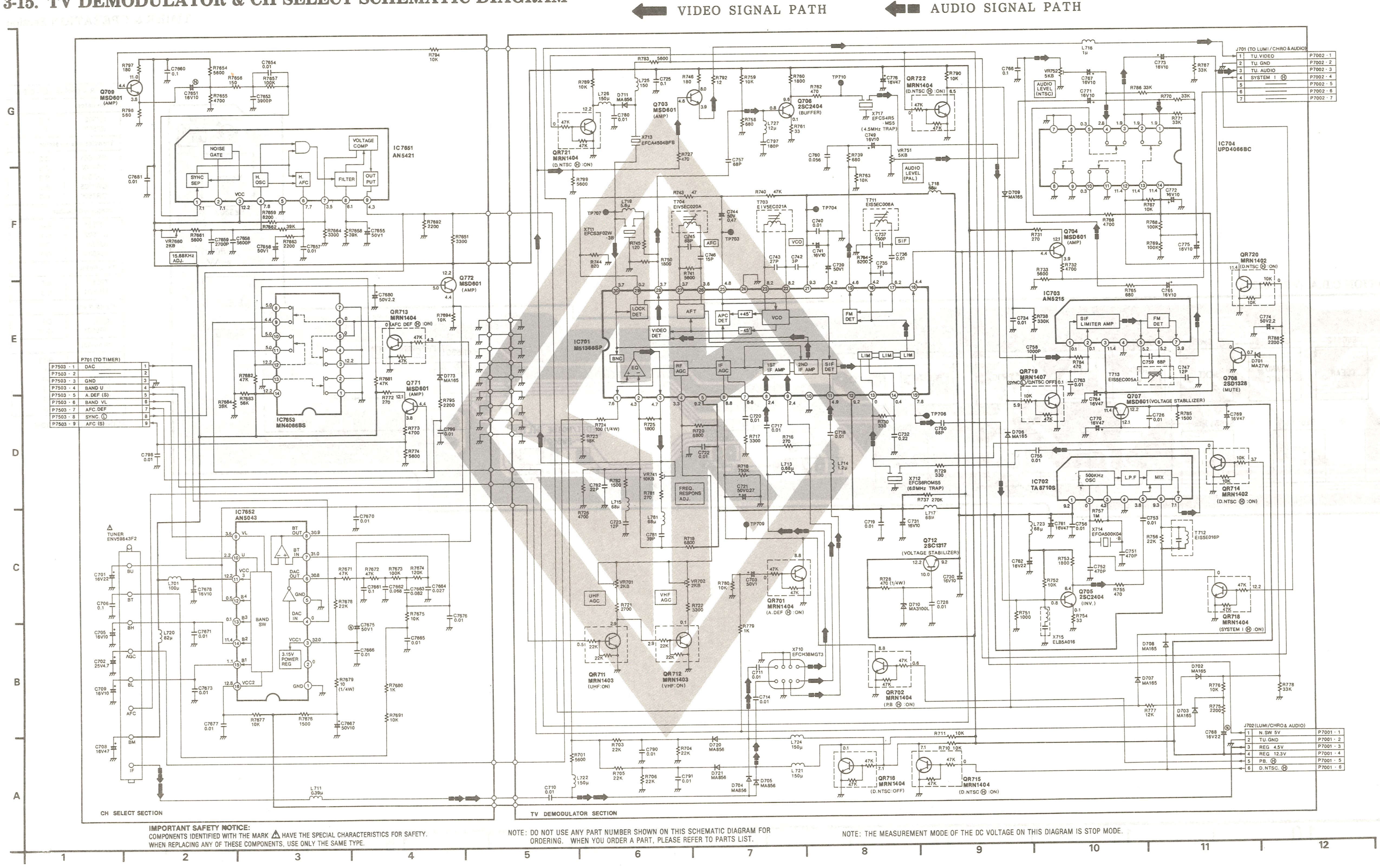

OPERATION C.B.A. (VEP06726A)
D6501
POWER LED
POWER
SW6503
R6501
EJECT
SW6504
P6502
SW6513
TIMER REC
SW6512
CLEAR
SW6511
BAND /AFC
SW6510
NEXT
SW6509
TRACK (+)
SW6508
TRACK (−)
SW6507
PROG
SW6506
PRESET
SW6505
CLOCK
SW6519
OFF (+)
SW6518
OFF (−)
SW6517
ON (+)
SW6516
ON (−)
SW6515
CH UP
SW6514
CH DOWN
P6501
TAPE SPEED
SW6502
LP ↔ SP
SLP NTSC PAL M
EDIT/NOISE FILTER
SW6501
EDIT ↔ OFF ↔ NOISE FILTER
R6504
VR6501
PICTURE CTL
SHARP ←——→ SOFT
P7505
SYSTEM SELECT
B ↔ A
9
10
11
12
13
14
15
16

TIMER & OPERATION C.B.A.	
Transistor	
Q7502	B-2
Q7503	A-1
Transistor & Resistor	
QR7501	B-2
QR7503	B-6
QR7504	B-2
QR7505	A-2
QR7506	B-3
Integrated Circuit	
IC7501	C-4
IC7502	C-2
IC7503	C-3
IC7504	C-1
Test Point	
TP7501	A-5
TP7501	C-8
Adjustment	
C7501	C-7
VR6501	C-15
Connector	
P6501	B-13
P6502	C-9
P7501	C-6
P7502	C-2
P7503	C-4
P7505	B-9

ADDRESS INFORMATION

Next Page:
TV DEMODULATOR Section

3-15. TV DEMODULATOR & CH SELECT SCHEMATIC DIAGRAM

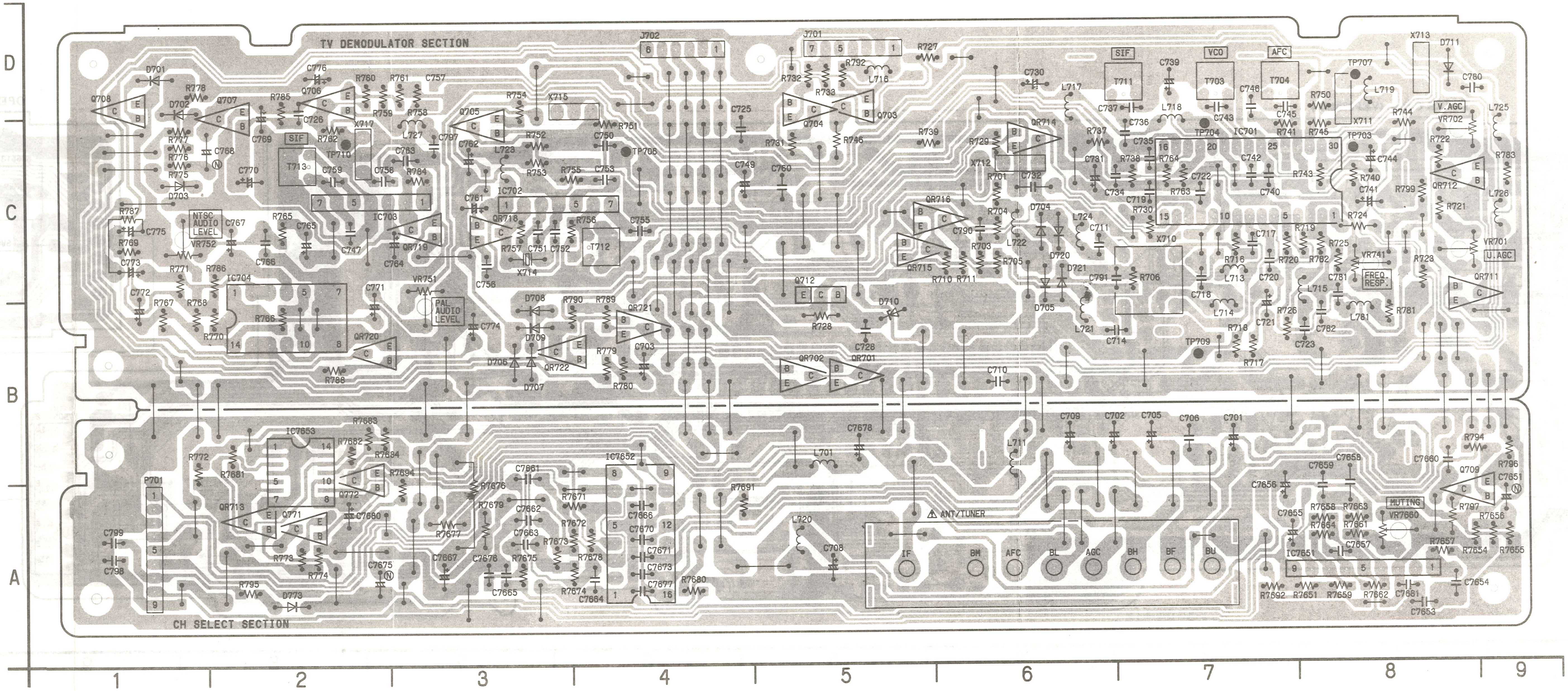

VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
CH SELECT SECTION
TV DEMODULATOR SECTION
IC7851 AN5421
IC7853 MN4066BS
IC7852 AN5043
IC701 M51366SP
IC702 TA8710S
IC703 AN5215
IC704 UPD4066BC
P701 (TO TIMER)
J701 (TO LUMI/CHRO & AUDIO)
J702 (LUMI/CHRO & AUDIO)
TUNER ENV59843F2
Q708 MSD601 (AMP)
Q772 MSD601 (AMP)
Q771 MSD601 (AMP)
Q703 MSD601 (AMP)
Q706 2SC2404 (BUFFER)
Q704 MSD601 (AMP)
Q705 2SC2404 (INV.)
Q707 MSD601 (VOLTAGE STABILIZER)
Q708 2SD1328 (MUTE)
Q712 2SC1317 (VOLTAGE STABILIZER)
QR721 MRN1404
QR722 MRN1404
QR713 MRN1404
QR711 MRN1403 (UHF:ON)
QR712 MRN1403 (VHF:ON)
QR701 MRN1404
QR702 MRN1404
QR716 MRN1404
QR715 MRN1404
QR714 MRN1402
QR718 MRN1404
QR719 MRN1407
QR720 MRN1402
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-16. TV DEMODULATOR & CH SELECT C.B.A. (VEP07635A)


TV DEMODULATOR SECTION
CH SELECT SECTION
D
C
B
A
1
2
3
4
5
6
7
8
9
J702
J701
P701
SIF
VCO
AFC
T711
T703
T704
T713
V.AGC
U.AGC
VR701
VR702
VR741
VR751
VR752
VR7660
NTSC AUDIO LEVEL
PAL AUDIO LEVEL
FREQ. RESP.
MUTING
IC701
IC702
IC703
IC704
IC7651
IC7652
IC7653
TP703
TP704
TP706
TP707
TP709
TP710
⚠ ANT/TUNER
IF
BM
AFC
BL
AGC
BH
BF
BU

TV DEMODULATOR & CH SELECT C.B.A.	
Transistor	
Q703	C-5
Q704	C-5
Q705	C-3
Q706	D-2
Q707	D-2
Q708	D-1
Q709	B-8
Q712	C-5
Q771	A-2
Q772	A-2
Transistor & Resistor	
QR701	B-5
QR702	B-5
QR711	C-9
QR712	C-8
QR713	A-2
QR714	C-6
QR715	C-5
QR716	C-6
QR718	C-3
QR719	C-3
QR720	B-2
QR721	B-4
QR722	B-3
Integrated Circuit	
IC701	C-7
IC702	C-3
IC703	C-3
IC704	C-2
IC7651	A-8
IC7652	B-4
IC7653	B-3
Test Point	
TP703	C-8
TP704	C-7
TP706	C-4
TP707	D-8
TP709	B-7
TP710	C-2
Adjustment	
T703	D-7
T704	D-7
T711	D-7
T713	C-2
VR701	C-9
VR702	C-8
VR741	C-8
VR751	C-3
VR752	C-1
VR7660	A-8
Connector	
J701	D-5
J702	D-4
P701	701

ADDRESS INFORMATION

3-17. MAIN C.B.A. (VEP03804A)

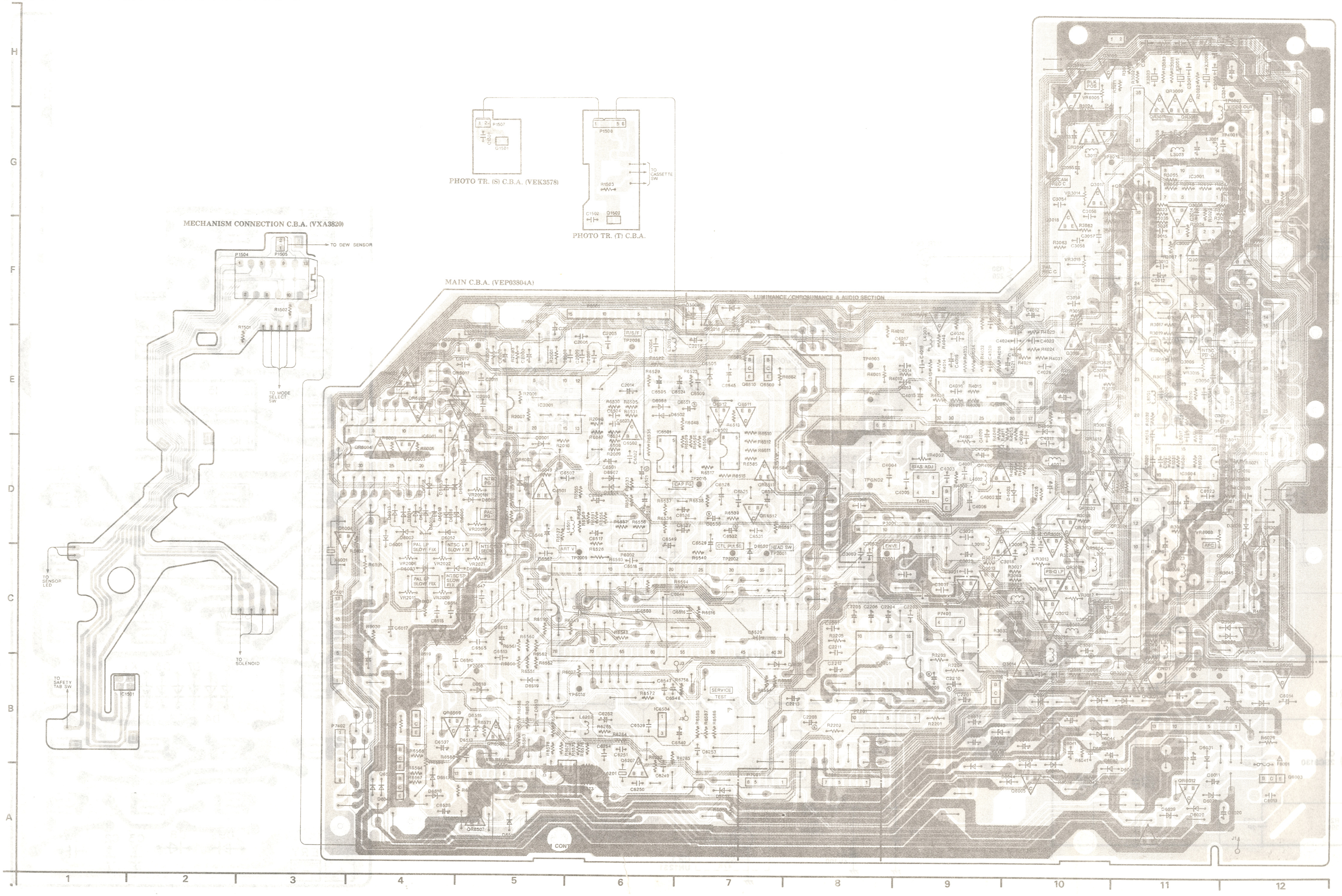


PHOTO TR. (S) C.B.A. (VEK3578)
PHOTO TR. (T) C.B.A.
TO CASSETTE SW
MECHANISM CONNECTION C.B.A. (VXA3820)
TO DEW SENSOR
TO MODE SELECT SW
TO SENSOR LED
TO SOLENOID
TO SAFETY TAB SW
MAIN C.B.A. (VEP03804A)
LUMINANCE / CHROMINANCE & AUDIO SECTION
SERVICE TEST
CAP FG
CTL PULSE
HEAD SW
BIAS ADJ
ENVE
AFC
NTSC PG
PAL PG
PAL LP SLOW FIX
NTSC LP SLOW FIX
NTSC SP SLOW FIX
PAL SP SLOW FIX
ART V
BLK POS
CAM REC C
PAL REC C
PB-C LP
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

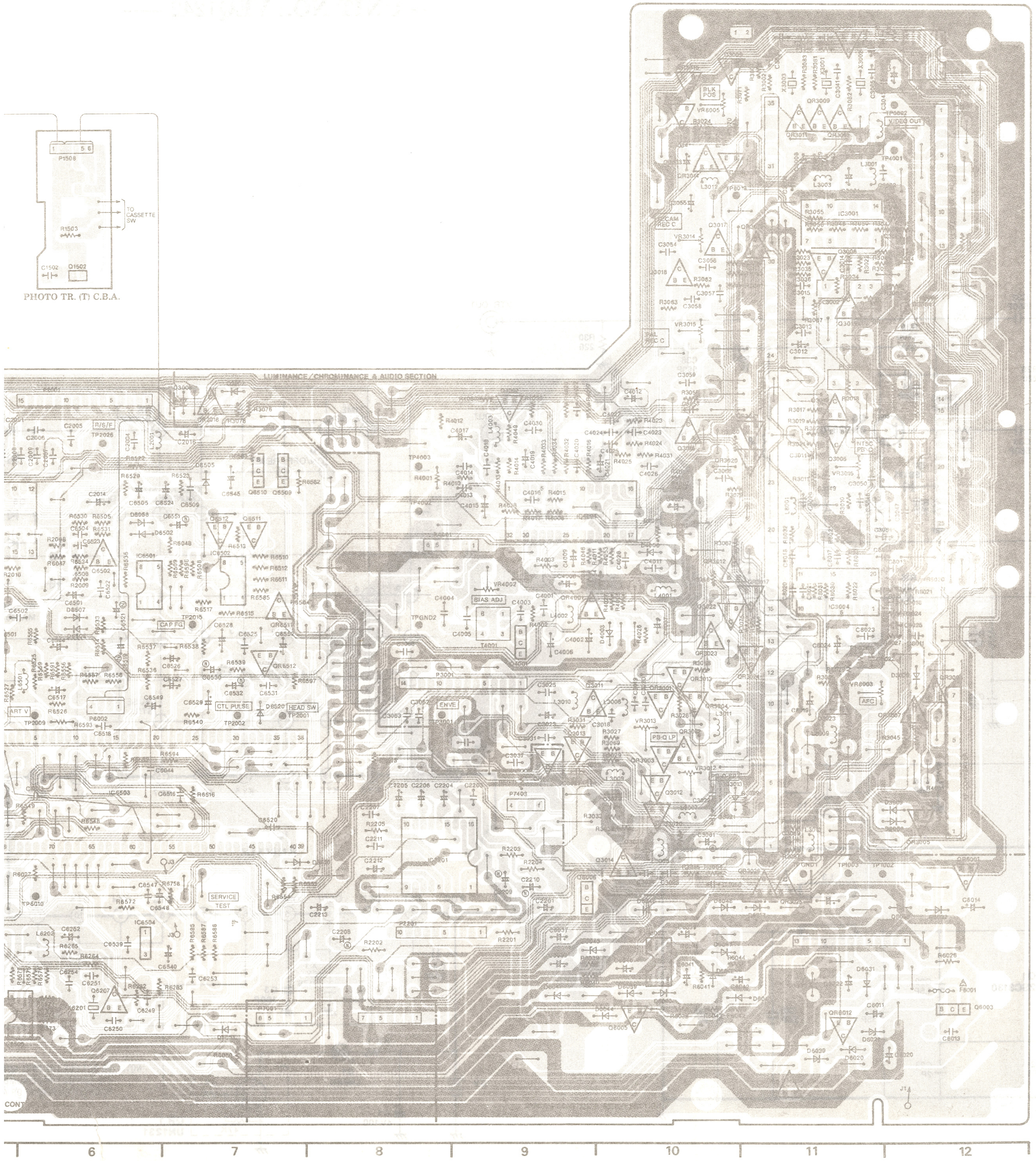
MA

Trans
Q15
Q15
Q60
Q60
Q60
Q60
Q60
Q62
Q65
Q65
Q65
Q65
Q65
Q65
Q65
Q65
Q65

Trans
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6
QR6

Integra
IC15
IC20
IC22
IC60

ADDRES



MAIN C.B.A. ADDRESS INFORMATION

SYSTEM CONTROL & SERVO Section	
Transistor	
Q1501	G-5
Q1502	G-6
Q6003	A-12
Q6004	D-4
Q6005	A-10
Q6006	B-9
Q6207	B-6
Q6501	D-5
Q6502	E-6
Q6506	A-4
Q6507	B-4
Q6508	B-4
Q6509	E-7
Q6510	E-7
Q6511	E-7
Q6512	E-7
Transistor & Resistor	
QR6001	B-12
QR6002	D-5
QR6003	D-4
QR6004	D-4
QR6008	C-9
QR6012	A-11
QR6013	E-5
QR6017	E-5
QR6018	E-5
QR6019	A-11
QR6020	E-4
QR6021	E-4
QR6501	C-5
QR6502	C-4
QR6507	A-5
QR6508	B-5
QR6509	B-4
QR6511	D-7
QR6512	D-7
Integrated Circuit	
IC1501	B-1
IC2001	E-5
IC2201	B-8
IC6001	E-4
IC6002	B-10
IC6501	D-6
IC6502	E-7
IC6503	C-6
IC6504	B-6
IC6505	A-6
Test Point	
TP1002	B-12
TP1003	B-11
TP2001	C-7
TP2002	C-7
TP2008	B-5
TP2009	C-6
TP2015	D-7
TP2020	E-5
TP2021	E-4
TP2026	E-6
TP6010	B-6
TP GND1	B-11
Adjustment	
VR2001N	D-5
VR2001P	D-5
VR2006	C-4
VR2011	C-4
VR2020	C-4
VR2021	C-5
VR2022	C-4
Connector	
P1504	F-3
P1505	F-3
P1507	G-5
P1508	G-6
P2001	F-6
P2201	B-8
P6001	A-5
P6002	C-5
P7401	C-3
P7402	B-3
P7403	C-9
BP1101	B-11

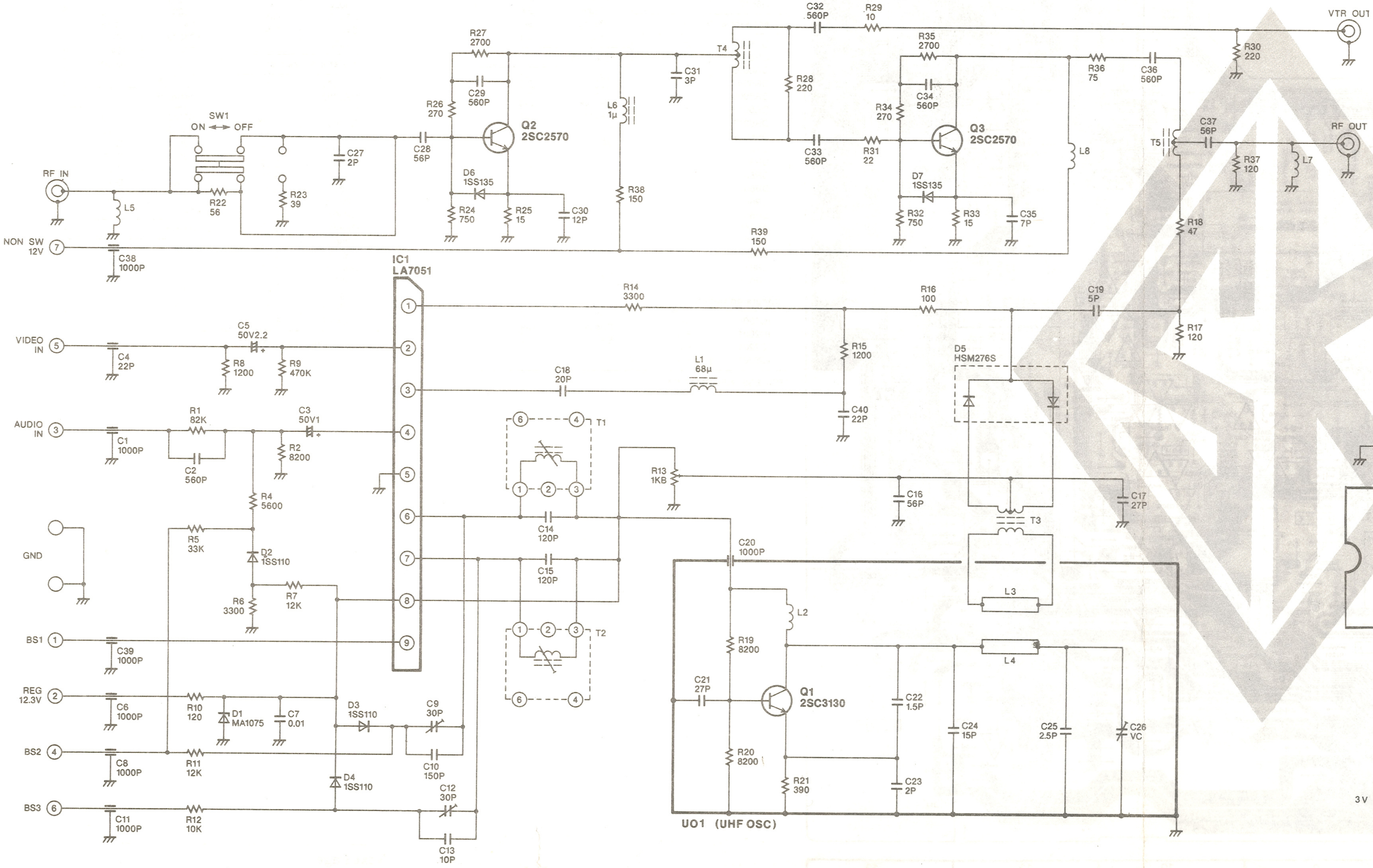
ADDRESS INFORMATION

LUMINANCE/CHROMINANCE & AUDIO Section	
Transistor	
Q3004	H-11
Q3005	E-11
Q3006	G-11
Q3009	H-10
Q3010	H-10
Q3011	D-9
Q3012	C-10
Q3013	C-9
Q3014	B-10
Q3015	F-11
Q3016	E-10
Q3017	G-10
Q3018	G-10
Q3019	F-11
Q3020	C-10
Q3022	D-10
Q3023	C-11
Q4001	D-9
Q4002	F-9
Transistor & Resistor	
QR3001	D-10
QR3002	C-10
QR3003	C-10
QR3004	D-10
QR3005	C-12
QR3006	D-12
QR3007	C-12
QR3008	G-10
QR3009	H-11
QR3010	H-11
QR3011	H-11
QR3012	E-10
QR3013	C-10
QR3014	G-10
QR3015	H-10
QR3017	D-11
QR3018	E-7
QR3019	G-11
QR3020	E-10
QR3021	E-11
QR3022	F-12
QR3023	D-10
QR3024	D-11
QR3025	B-11
QR3026	B-11
QR4001	D-9
Integrated Circuit	
IC3001	G-11
IC3002	E-12
IC3003	H-12
IC3004	D-11
IC4001	E-9
Test Point	
TP3001	C-8
TP3002	H-12
TP4001	G-12
TP4002	E-8
TP4003	E-8
TP8013	G-10
TP GND2	D-8
Adjustment	
VR3012	C-10
VR3013	C-10
VR3014	G-10
VR3015	F-10
VR3016	E-11
VR4002	D-9
VR8003	D-11
VR8005	H-10
Connector	
P1002	H-10
P3001	D-8
P4001	E-8
P7001	B-7
P7002	B-8

ADDRESS INFORMATION

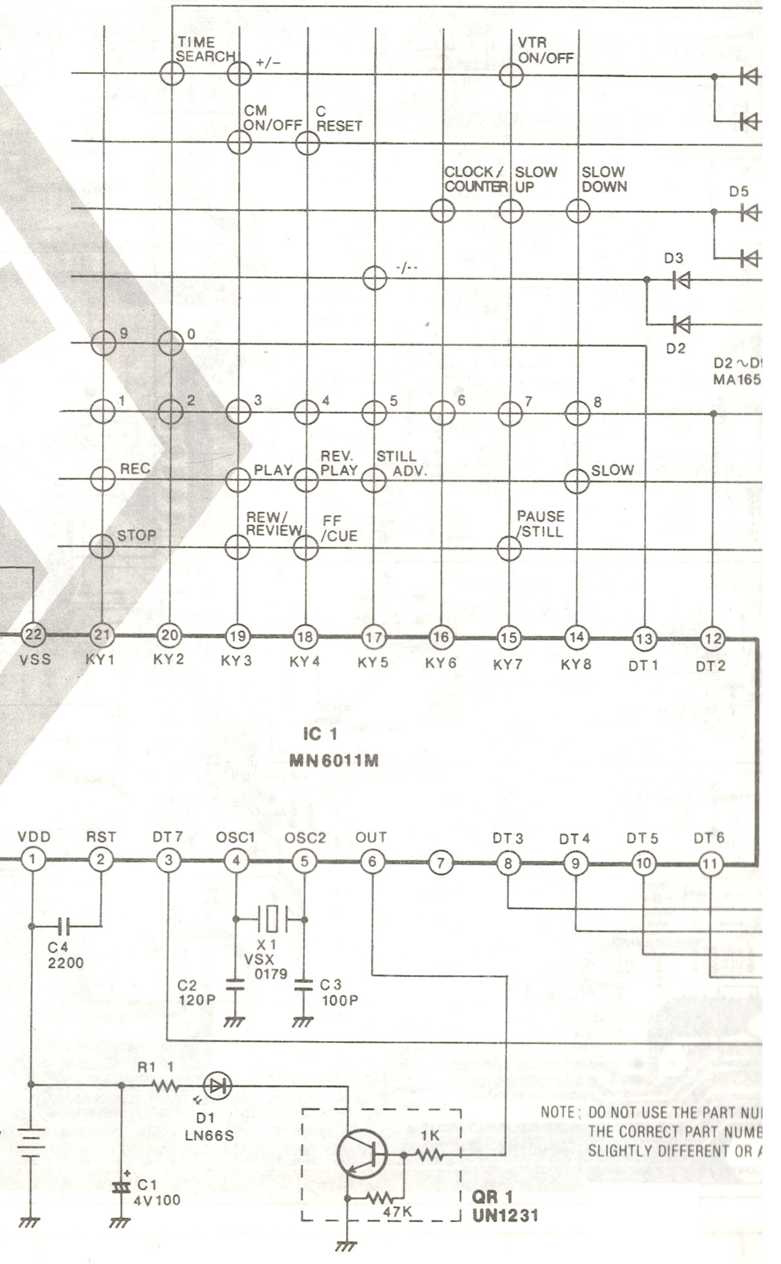
Next Page:
RF CONV. & REMOTE CTL Section

3-18. RF CONVERTER SCHEMATIC DIAGRAM (ENC87750)


RF IN
L5
SW1
ON ◄► OFF
R22 56
R23 39
C27 2P
C28 56P
R26 270
R27 2700
C29 560P
Q2 2SC2570
D6 1SS135
R24 750
R25 15
C30 12P
L6 1µ
R38 150
C31 3P
T4
C32 560P
R29 10
R28 220
C33 560P
R31 22
R35 2700
C34 560P
R34 270
Q3 2SC2570
D7 1SS135
R32 750
R33 15
C35 7P
L8
R36 75
C36 560P
T5
C37 56P
R37 120
L7
R30 220
VTR OUT1
RF OUT
R18 47
R17 120
NON SW 12V ⑦
C38 1000P
R39 150
IC1 LA7051
VIDEO IN ⑤
C4 22P
C5 50V2.2
R8 1200
R9 470K
AUDIO IN ③
C1 1000P
R1 82K
C2 560P
C3 50V1
R2 8200
R4 5600
R5 33K
D2 1SS110
R6 3300
R7 12K
GND
BS1 ①
C39 1000P
REG 12.3V ②
C6 1000P
R10 120
D1 MA1075
C7 0.01
D3 1SS110
C9 30P
C10 150P
BS2 ④
C8 1000P
R11 12K
D4 1SS110
BS3 ⑥
C11 1000P
R12 10K
C12 30P
C13 10P
R14 3300
R16 100
C19 5P
R15 1200
C18 20P
L1 68µ
C40 22P
D5 HSM276S
T1
T2
C14 120P
C15 120P
R13 1KB
C16 56P
C17 27P
T3
L3
C20 1000P
L2
R19 8200
C21 27P
Q1 2SC3130
R20 8200
R21 390
C22 1.5P
C23 2P
L4
C24 15P
C25 2.5P
C26 VC
UO1 (UHF OSC)

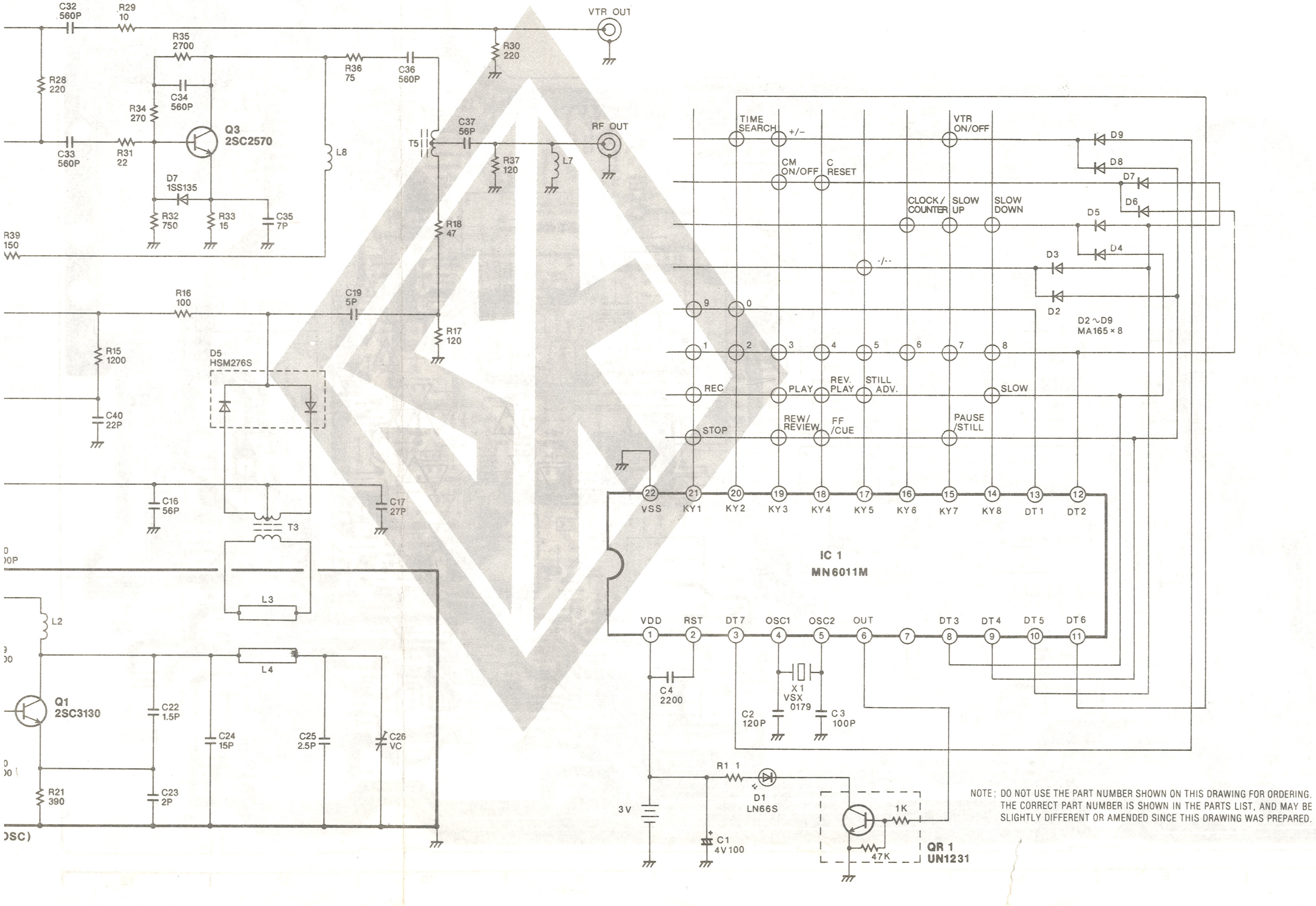
3-19. REMOTE CONTROLLER SCHEMATIC

—— UNIT NO.: VEQ1242 ——


TIME SEARCH
+/−
VTR ON/OFF
CM ON/OFF
C RESET
CLOCK/COUNTER
SLOW UP
SLOW DOWN
D5
D3
D2
D2～D
MA165
-/--
9
0
1
2
3
4
5
6
7
8
REC
PLAY
REV. PLAY
STILL ADV.
SLOW
STOP
REW/REVIEW
FF/CUE
PAUSE/STILL
VSS
KY1
KY2
KY3
KY4
KY5
KY6
KY7
KY8
DT1
DT2
IC 1
MN6011M
VDD
RST
DT7
OSC1
OSC2
OUT
DT3
DT4
DT5
DT6
C4 2200
X1 VSX 0179
C2 120P
C3 100P
R1 1
D1 LN66S
3V
C1 4V100
1K
47K
QR 1 UN1231
NOTE: DO NOT USE THE PART NU
THE CORRECT PART NUMBE
SLIGHTLY DIFFERENT OR A

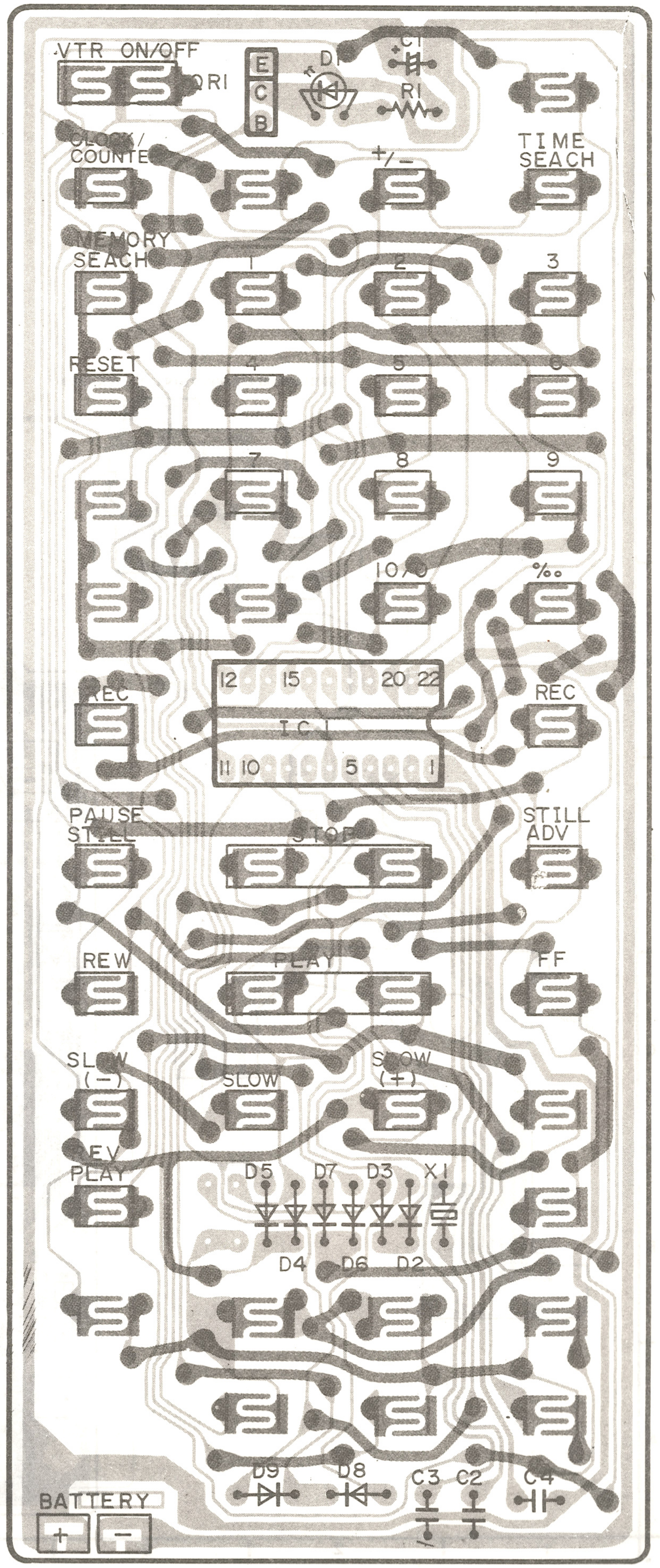
3-19. REMOTE CONTROLLER SCHEMATIC DIAGRAM

— UNIT NO.: VEQ1242 —


C32 560P
R29 10
VTR OUT
R35 2700
R28 220
C34 560P
R34 270
R36 75
C36 560P
R30 220
Q3 2SC2570
C33 560P
R31 22
L8
T5
C37 56P
RF OUT
R37 120
L7
D7 1SS135
R32 750
R33 15
C35 7P
R18 47
R39 150
R16 100
C19 5P
R17 120
R15 1200
D5 HSM276S
C40 22P
C16 56P
C17 27P
T3
L3
L2
L4
Q1 2SC3130
C22 1.5P
C24 15P
C25 2.5P
C26 VC
R21 390
C23 2P
TIME SEARCH
+/−
VTR ON/OFF
CM ON/OFF
C RESET
CLOCK/COUNTER
SLOW UP
SLOW DOWN
-/--
9
0
1
2
3
4
5
6
7
8
REC
PLAY
REV. PLAY
STILL ADV.
SLOW
STOP
REW/REVIEW
FF /CUE
PAUSE /STILL
D9
D8
D7
D6
D5
D4
D3
D2
D2～D9 MA165 × 8
VSS
KY1
KY2
KY3
KY4
KY5
KY6
KY7
KY8
DT1
DT2
IC 1 MN6011M
VDD
RST
DT7
OSC1
OSC2
OUT
DT3
DT4
DT5
DT6
C4 2200
X1 VSX 0179
C2 120P
C3 100P
R1 1
D1 LN66S
3V
C1 4V 100
1K
47K
QR 1 UN1231

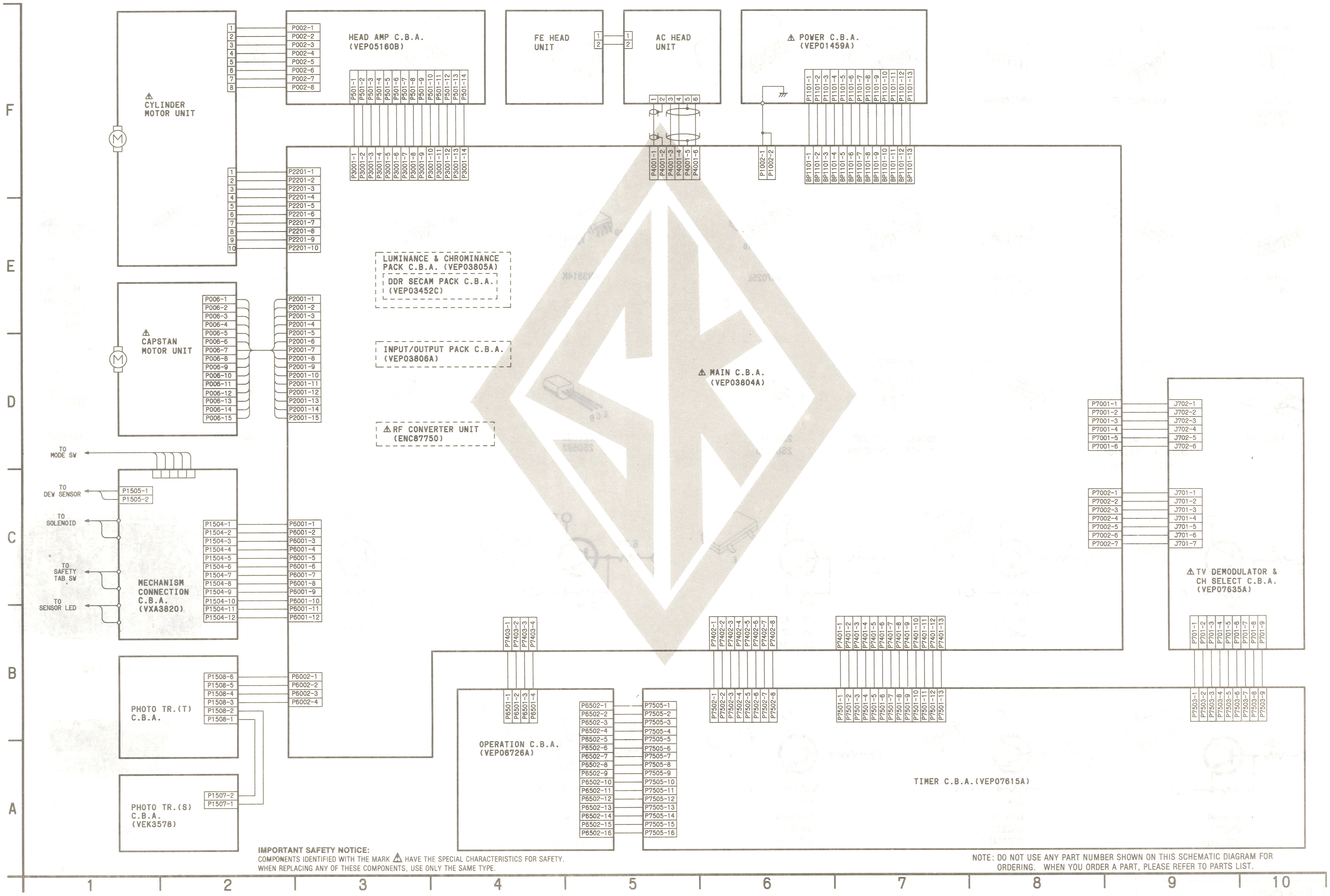
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-20. REMOTE CONTROLLER C.B.A. (VEP66038B)


VTR ON/OFF
QR1
E
C
B
D1
C1
R1
CLOCK/COUNTER
+/−
TIME SEACH
MEMORY SEACH
1
2
3
RESET
4
5
6
7
8
9
10/0
%.
REC
IC 1
12
15
20
22
11
10
5
1
REC
PAUSE STILL
STOP
STILL ADV
REW
PLAY
FF
SLOW (−)
SLOW
SLOW (+)
REV PLAY
D5
D7
D3
X1
D4
D6
D2
D9
D8
C3
C2
C4
BATTERY
+
−

NV-J700AM

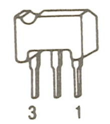
3-21. INTERCONNECTION SCHEMATIC DIAGRAM


CYLINDER MOTOR UNIT
HEAD AMP C.B.A. (VEP05160B)
FE HEAD UNIT
AC HEAD UNIT
POWER C.B.A. (VEP01459A)
CAPSTAN MOTOR UNIT
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03805A)
DDR SECAM PACK C.B.A. (VEP03452C)
INPUT/OUTPUT PACK C.B.A. (VEP03806A)
RF CONVERTER UNIT (ENC87750)
MAIN C.B.A. (VEP03804A)
TO MODE SW
TO DEW SENSOR
TO SOLENOID
TO SAFETY TAB SW
TO SENSOR LED
MECHANISM CONNECTION C.B.A. (VXA3820)
PHOTO TR.(T) C.B.A.
PHOTO TR.(S) C.B.A. (VEK3578)
OPERATION C.B.A. (VEP06726A)
TIMER C.B.A.(VEP07615A)
TV DEMODULATOR & CH SELECT C.B.A. (VEP07635A)
P002-1 … P002-8
P501-1 … P501-14
P3001-1 … P3001-14
P2201-1 … P2201-10
P4001-1 … P4001-6
P1002-1, P1002-2
P1101-1 … P1101-13
BP1101-1 … BP1101-13
P006-1 … P006-15
P2001-1 … P2001-15
P1505-1, P1505-2
P1504-1 … P1504-12
P6001-1 … P6001-12
P1508-1 … P1508-6
P6002-1 … P6002-4
P1507-1, P1507-2
P7001-1 … P7001-6
J702-1 … J702-6
P7002-1 … P7002-7
J701-1 … J701-7
P7403-1 … P7403-4
P6501-1 … P6501-4
P7402-1 … P7402-8
P7502-1 … P7502-8
P7401-1 … P7401-13
P7501-1 … P7501-13
P701-1 … P701-9
P7503-1 … P7503-9
P6502-1 … P6502-16
P7505-1 … P7505-16
A B C D E F
1 2 3 4 5 6 7 8 9 10

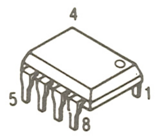
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

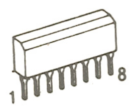
3-22. ICs & TRs INFORMATION



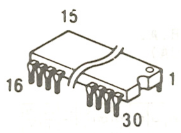
MN1280L
MN1280R
MN1280S



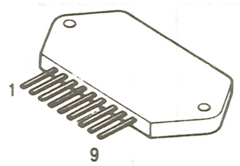
MSM6965-3RS



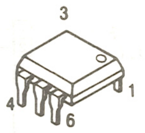
µPC1490HA



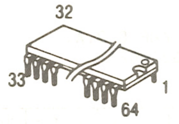
M51366SP
BA7107S



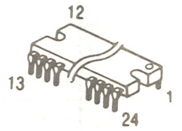
STK5391
VEFH24A



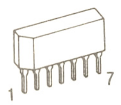
PC111



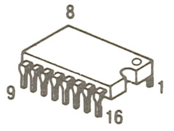
M37422V4AQ



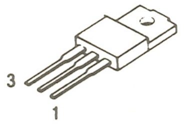
BA6432S



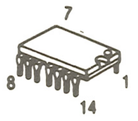
TA8710S
AN5215



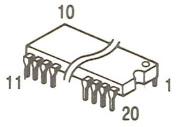
MN12C261D
AN5043



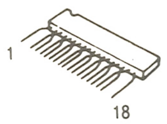
SE014N



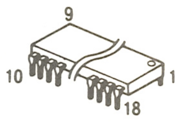
µPD4066BC
NJM1496D



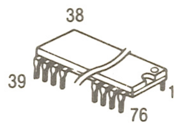
M52063SP



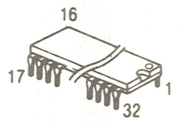
BA7025L



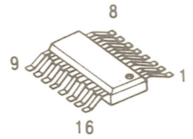
AN3814K



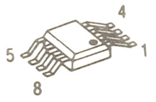
MN6740VCFK



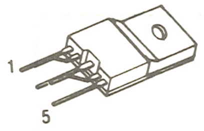
BA7766AS
BA7274S
BU5780S



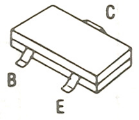
M52055FP
M52065FP
MN4066BS



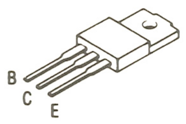
LM393PS
NJM2245MA
NJM2233BMA
AN6562S
AN6914S



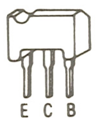
STRD6108E



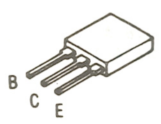
2SD601 MSC2295
MSD601 2SC2404
MSB709 2SD1328



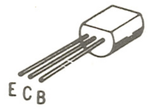
2SD1994



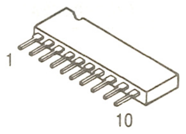
2SD638 2SD1330
2SD639 2SD1992A



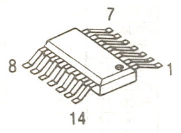
2SA1512R
2SD1423



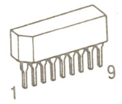
2SD893
2SD592



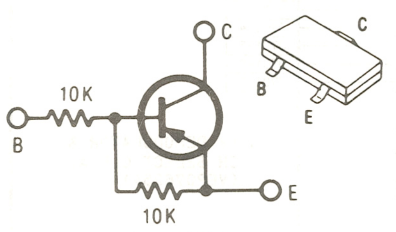
BA7604



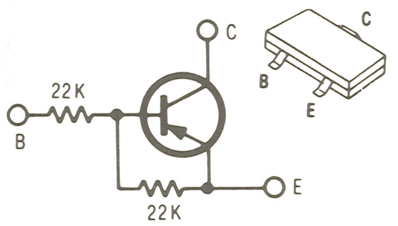
MN4013BS



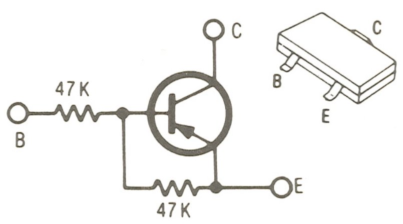
AN5421N


10K
B
C
E
10K
C
B
E

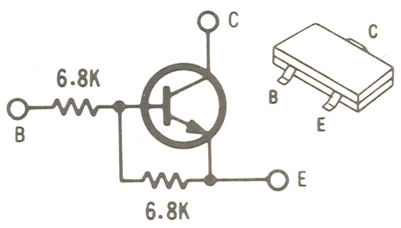
MRN2402
UN2111
DTA114EK


22K
B
C
E
22K
C
B
E

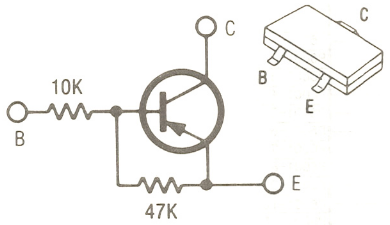
MRN2403
UN2112
DTA124EK


47K
B
C
E
47K
C
B
E

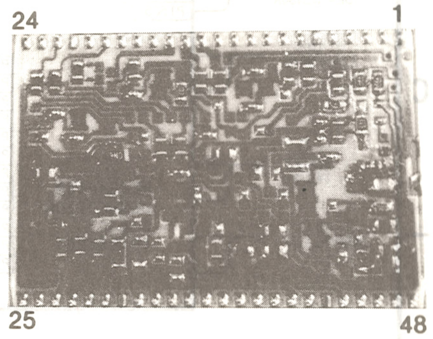
MRN2404
UN2113
DTA144EK


6.8K
B
C
E
6.8K
C
B
E

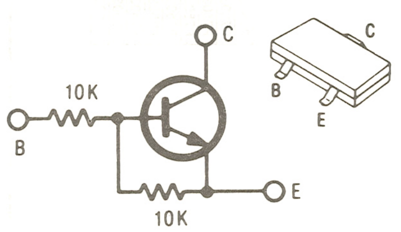
DTC363EK


10K
B
C
E
47K
C
B
E

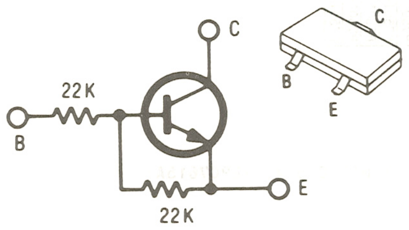
UN2114



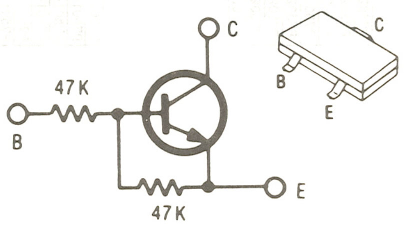
VEFH14D


10K
B
C
E
10K
C
B
E

MRN1402
UN2211
DTC114EK


22K
B
C
E
22K
C
B
E

MRN1403
UN2212
DTC124EK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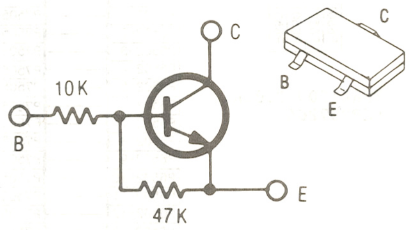
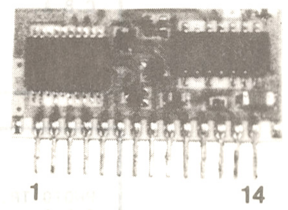
B
C
E
47K
C
B
E

MRN1404
UN2213
DTC144EK

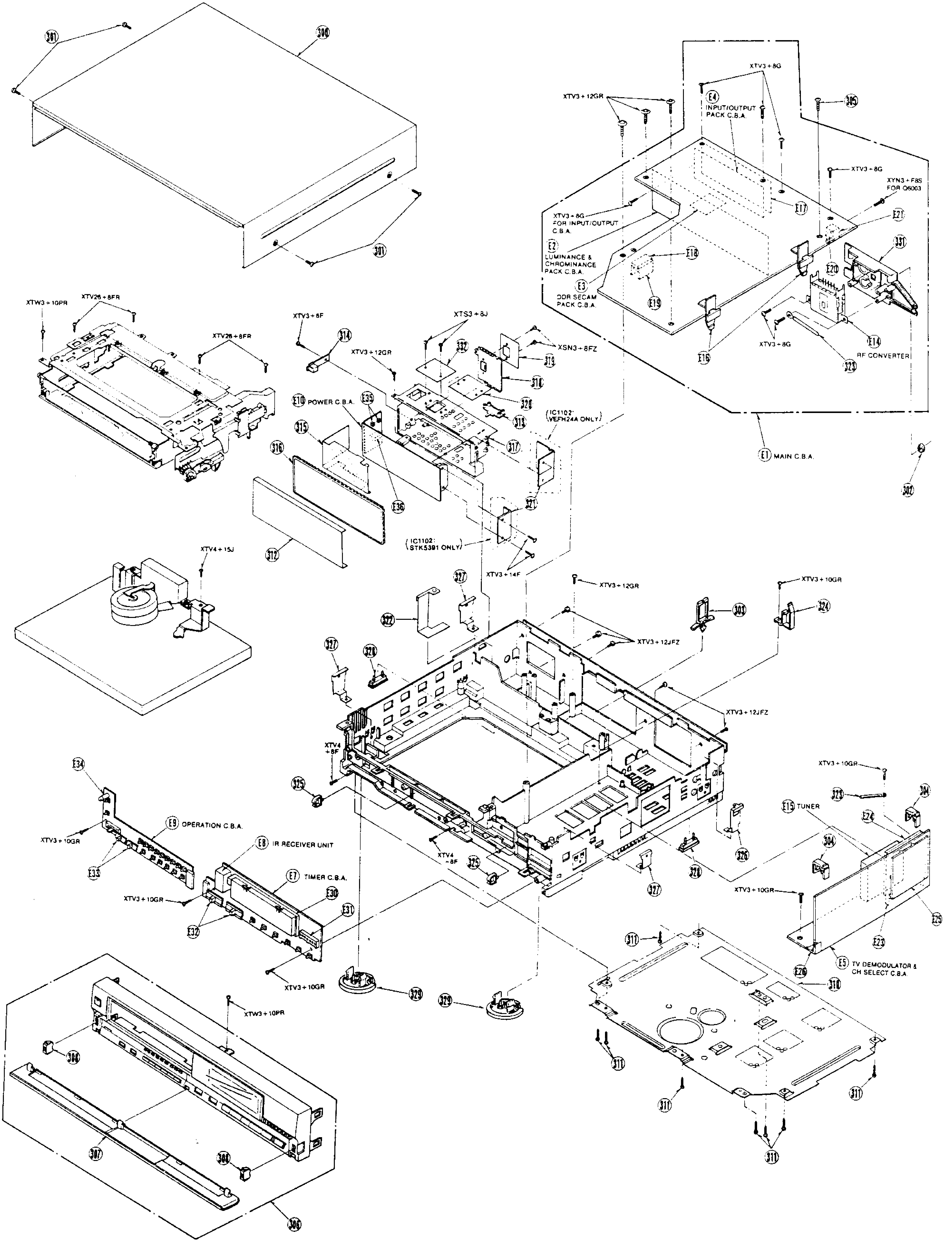

10K
B
C
E
47K
C
B
E

MRN1407
UN2214
DTC114YK



VCR0321A

Back Page:
INTERCONNECTION Section


301
300
301
XTV3+8G
XTV3+12GR
E4 INPUT/OUTPUT PACK C.B.A.
305
XTV3+8G
XYN3+F8S FOR Q6003
XTV3+8G FOR INPUT/OUTPUT C.B.A.
E17
E21
331
E2 LUMINANCE & CHROMINANCE PACK C.B.A.
E18
E3 DDR SECAM PACK C.B.A.
E19
E20
E16
XTV3+8G
E14
RF CONVERTER
323
E1 MAIN C.B.A.
302
XTW3+10PR
XTV26+8FR
XTV26+8FR
XTV3+8F
314
XTS3+8J
332
XSN3+8FZ
319
XTV3+12GR
318
320
E10 POWER C.B.A.
E35
313
(IC1102: VEFH24A ONLY)
315
317
316
E36
321
(IC1102: STK5391 ONLY)
312
XTV3+14F
XTV4+15J
327
322
XTV3+12GR
303
XTV3+10GR
324
XTV3+12JFZ
327
328
XTV3+12JFZ
XTV4 +8F
325
E34
XTV3+10GR
323
304
E15 TUNER
E24
E9 OPERATION C.B.A.
E8 IR RECEIVER UNIT
XTV3+10GR
E33
XTV4 -8F
325
E7 TIMER C.B.A.
E30
326
328
327
304
XTV3+10GR
E25
E31
XTV3+10GR
E32
311
E23
E26
E5 TV DEMODULATOR & CH SELECT C.B.A.
XTV3+10GR
329
329
310
XTW3+10PR
308
311
311
311
307
308
306
311

ORDER NO. VRD-7910-346

Service Manual

Tuner Adaptor

Panasonic VHS

NV-V800-E -B

Panasonic
TUNER
TV · VTR
AFT
CH LOCK
CHECK
DAY
HOUR
MIN
TIMER REC/PLAY
PROGRAM
NORMAL
CLOCK
Tuner Adaptor NV-V800

91019315 K 31

SPECIFICATIONS

Power Source:	110 V/127 V/220 V/240 V AC, 50 Hz
Power Consumption:	Approx. 12 watts
Television System:	CCIR: 625 lines, 50 fields PAL colour signal
Tuner Reception Ch:	E type VHF ch. 2 – 12 UHF ch. 21 – 69 B type UHF ch. 21 – 69 75Ω unbalanced (DIN)
Outputs:	Video: 1.0 Vp-p, 75Ω unbalanced Audio: Line −18 dB opened
RF Converter:	UHF ch. 36 ± 3, 75Ω unbalanced (DIN)

Horizontal Resolution:	More than 320 lines (B/W)
Signal-to-Noise Ratio:	Video: more than 45 dB (B/W) Audio: more than 40 dB
Audio Frequency Response:	50 to 10,000 Hz
Operating Temperature:	0°C to 40°C
Weight:	Approx. 6.4 kg
Dimensions:	Approx. 320(W) × 149(H) × 351(D) mm

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic®

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

FEATURES

1. Possible to record TV programmes
   This tuner adaptor is developed for use with the Portable Video Cassette Recorder NV-8400.
   You can record a TV programme as long as 3 hours in length on a single tape by using the portable recorder.
2. Soft touch channel selection
   Quick touch channel selector buttons are used on this tuner adaptor.
3. Watch one channel, record another
   Because this model has a built-in tuner, you can record a programme on one channel while watching a different programme on your television receiver.
4. Unattended recording while you're out, asleep or busy
   The programmable clock/timer system permits unattended recording.
   It can be preset to switch on and off up to seven days in advance in order to record your favourite programme.

CONTENTS

SPECIFICATIONS .... Cover
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PRECAUTIONS

- Before trying to operate the unit, be sure that the Timer Rec/Play Switch of the Programmable Clock/Timer is set to OFF, and that the Mode Selector Switch is turned to "NORMAL".
- Do not block the ventilation slots on the top and bottom of the unit.
- Use this unit horizontally and do not put anything on top of this unit.

IMPORTANT

"Unauthorized recording of copyrighted television programmes, films, video tapes and other materials may infringe the right of copyright owners and be contrary to copyright laws."

CAUTION:

The Tuner Adaptor NV-V800 is for use with Portable Video Cassette Recorder NV-8400.

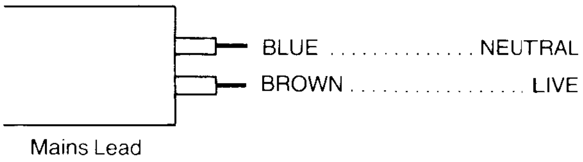
WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

FOR YOUR SAFETY

- **DO NOT REMOVE PANEL COVER BY UNSCREWING.**
  To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
- **VOLTAGE SELECTOR SETTING.**
  The power cord of this tuner adaptor must be disconnected from mains before the voltage selector setting is changed.
- **AC POWER CORD CONNECTION.**
  NV-V800-B only
  The wires in the mains lead of this apparatus are coloured in accordance with the following code.

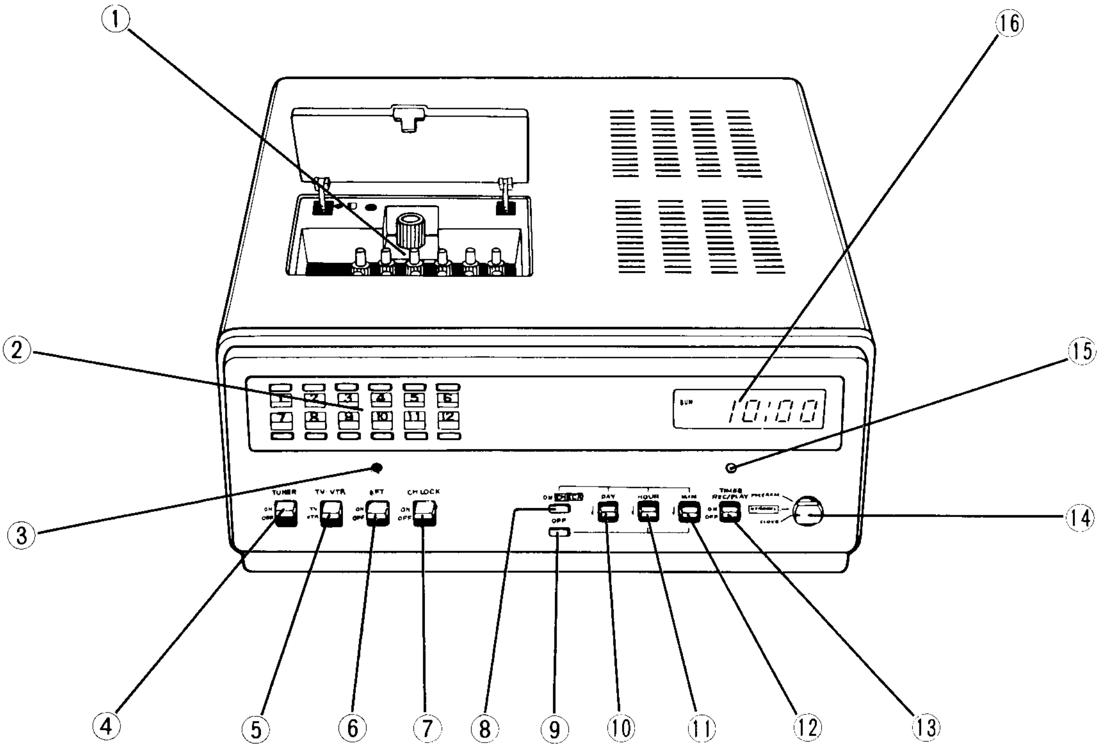
Important



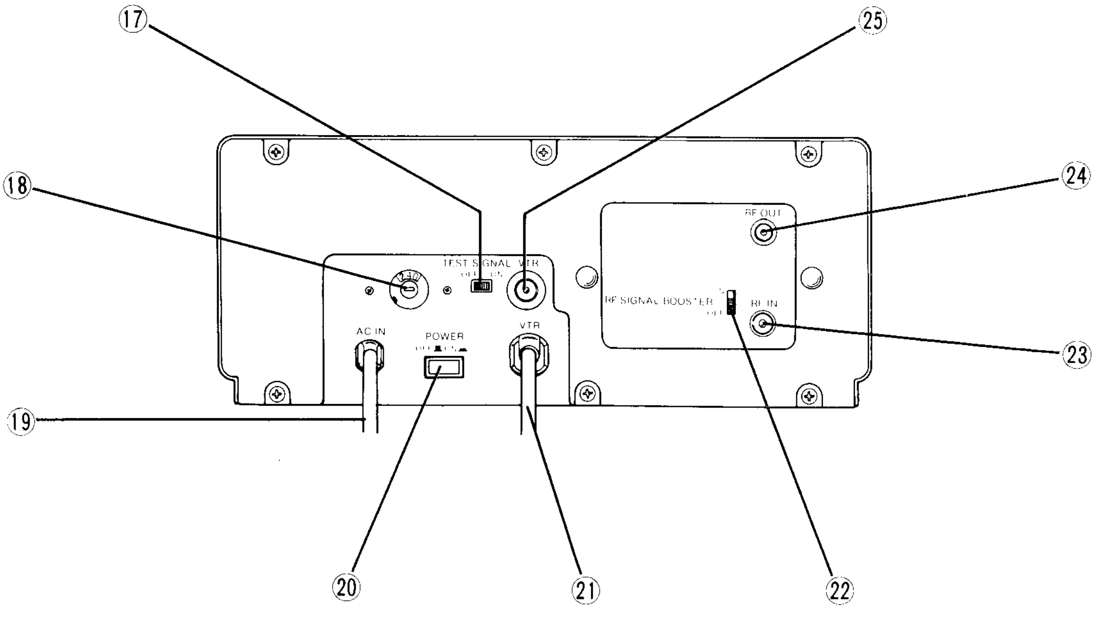
As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured red.

MAJOR OPERATING COMPONENTS

TOP and FRONT


①
⑯
②
⑮
③
⑭
1
2
3
4
5
6
7
8
9
10
11
12
SUN
10:00
TUNER
ON
OFF
TV · VTR
TV
VTR
AFT
ON
OFF
CH LOCK
ON
OFF
ON
CHECK
OFF
DAY
HOUR
MIN
TIMER
REC/PLAY
ON
OFF
PROGRAM
CLOCK
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬

REAR


⑰
㉕
⑱
㉔
240
TEST SIGNAL
OFF ON
VTR
RF OUT
RF SIGNAL BOOSTER
OFF
RF IN
AC IN
POWER
VTR
㉓
⑲
⑳
㉑
㉒

OPERATING COMPONENTS AND THEIR FUNCTIONS

TOP and FRONT

①**Tuning Controls**
These controls allow tuning and fine tuning of any desired broadcast in your area.

②**Channel Selector Buttons/Lamps**
Push any one of these buttons and the channel selected with the corresponding tuning knob will be received. No further tuning is necessary.

③**AFT Lamp**
This lamp illuminates when the AFT Switch ⑥ is turned to ON.

④**Tuner On/Off Switch** [**TUNER**]
This switch is used to turn the tuner adaptor on and off.

⑤ **TV/VTR Selector** [**TV-VTR**]
This switch selects one of two signals which will be seen on the TV.
Place it in the "VTR" position to view playback pictures or to see the picture you are recording.
Place it in the "TV" position to use your TV as you normally would.

- **Note:**
When the Tuner On/Off Switch ④ is set to "OFF" position, the switch is automatically set to "TV" position.
- **Reminder:**
When viewing your television as you normally do, it is not necessary to turn the Tuner On/Off Switch ④ ON. Antenna connection is automatically switched to your television set by the TV/VTR Selector Switch ⑤ when Tuner On/Off Switch ④ is set to the "OFF" position.

⑥**AFT Switch** [**AFT**]
This control locks the fine tuner to the desired channel to keep the picture clear at all times. Keep the AFT off when fine-tuning the desired channel, then set it to "ON", to lock the picture in.

⑦**Channel Lock Switch** [**CH LOCK**]
This switch is used to lock the desired channel.
Place this switch in the "ON" position to lock the desired channel. In this condition, you can not change to another channel.
Place the switch in the "OFF" position to use the Channel Selector Buttons ② normally.

⑧**Timer On/Check Button** [**ON CHECK**]
This button is used to programme starting time or check the timer preparation.

⑨**Timer Off Button** [**OFF**]
This button is used to programme stop time for unattended recording.

⑩**Day Lever** [**DAY**]
This lever is used to select the day when unattended recording will take place.
This display will appear as follows:
SUN, MON, TUE, WED, THU, FRI, SAT, and a full week.

⑪**Hour Lever** [**HOUR**]
This lever is used to set hours on the programmable clock/timer.

⑫**Minute Lever** [**MIN**]
This lever is used to set minutes on the programmable clock/timer.

⑬**Timer Rec/Play Switch** [**TIMER REC/PLAY**]
This enables the timer to turn the portable recorder NV-8400 ON when the desired time is reached. When the switch is in the "ON" position, the timer has control over the portable recorder NV-8400.

⑭**Time Mode Selector**
This switch is used when setting the timer.
"PROGRAM" position is used to programme the time for unattended recording.
"NORMAL" position is used for normal operation.
"CLOCK" position is used for setting time of day.

⑮**Timer Rec/Play Indicator Lamp**
This lamp lights when the Timer Rec/Play Switch ⑬ is in the "ON" position.

⑯**Digital Display**
This is a display for the time of day and indicates preselected programme time.

REAR

⑰**Test Signal Switch** [**TEST SIGNAL**]
This switch is for use to tune the VHS RF output channel on the TV receiver.

⑱**Voltage Selector**
Be sure to select the local voltage by turning the selector to view the voltage indication in the small window. Voltage Indication: 110, 127, 220, 240V AC.
Note:
The Power Off/On Switch ⑳ must always be in "OFF" position prior to changing the voltage setting.

⑲**AC Power Cord** [**AC IN**]

⑳**Power Off/On Switch** [**POWER**]
Switching on applies power to the tuner adaptor. To switch off this adaptor completely, set the Power Off/On Switch to the "OFF" position.

㉑**VTR Connection Cord** [**VTR**]
This cord is for connection to the NV-8400 portable recorder's camera/tuner socket. It carries the various audio, video and timer signals.

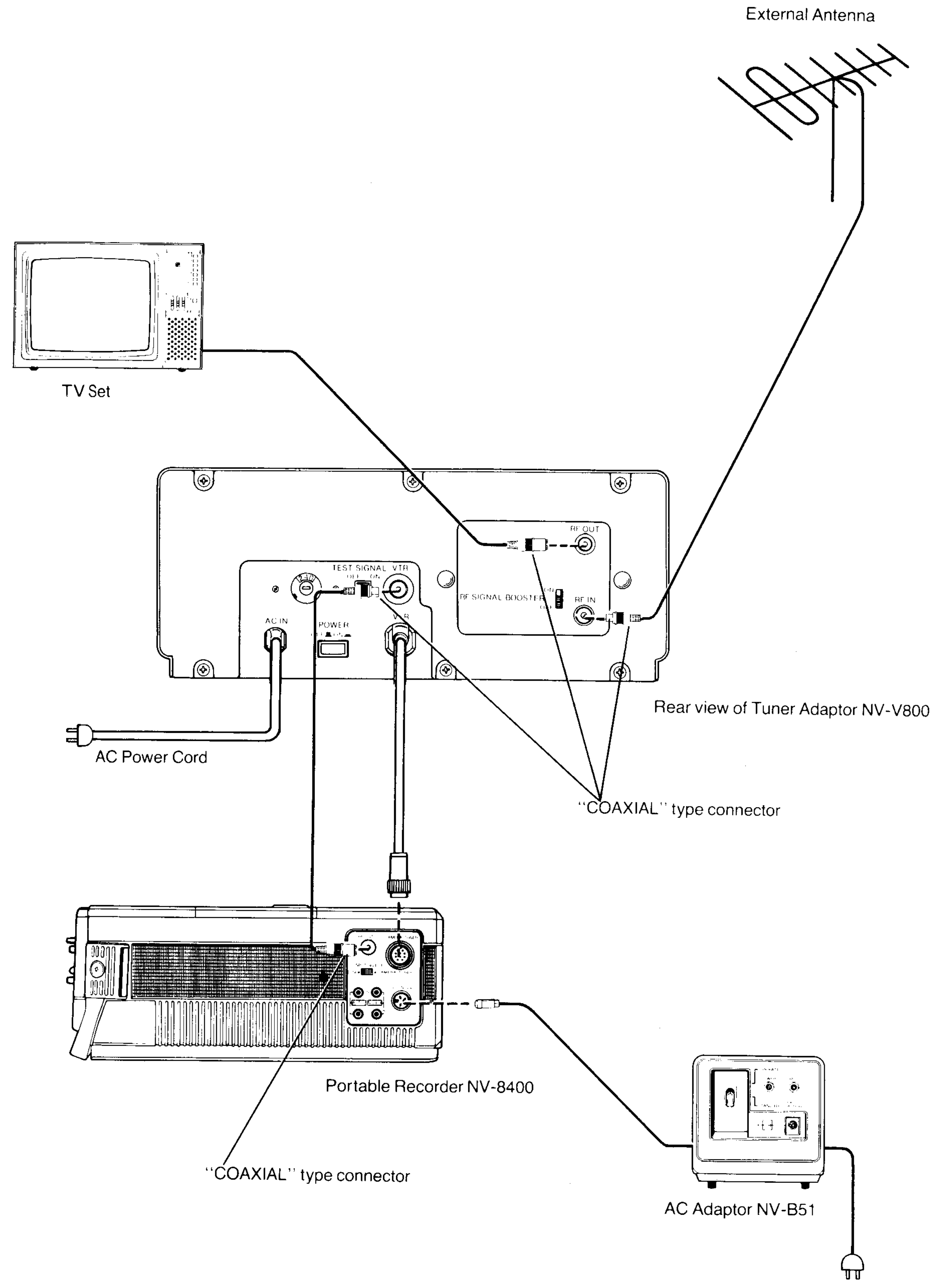
㉒**RF Signal Booster Switch** [**RF SIGNAL BOOSTER**]
This switch is for use to amplify the reception of the VHF and/or UHF antenna signals.

㉓**RF Input Connector** [**RF IN**]
This is where the external antenna is connected to the tuner adaptor. The connector is a type "COAXIAL".

㉔**RF Output Connector** [**RF OUT**]
This connects to the antenna terminal (COAXIAL type) of a conventional TV receiver. The cable is used for the connection between the tuner adaptor and the TV set.

㉕**RF Signal VTR Connector** [**VTR**]
For connection to receive RF converter signal from the portable recorder NV-8400. This connects to the RF output connector of the portable recorder NV-8400. The cable is used to the connection between the tuner adaptor and the portable recorder.

ANTENNA CONNECTION


External Antenna
TV Set
Rear view of Tuner Adaptor NV-V800
AC Power Cord
"COAXIAL" type connector
Portable Recorder NV-8400
"COAXIAL" type connector
AC Adaptor NV-B51

ADJUSTMENT PROCEDURES

ADJUSTMENT OF TV DEMODULATOR

MODEL: NV-V800E

This section provides complete electrical adjustment procedures which may be required for TV demodulator circuit.

Test Equipment

To make adjustments completely, following equipment is required.

1. VIF Sweep Generator	...	38.9MHz
2. SIF Sweep Generator	...	33.4MHz ± 150KHz
3. Oscilloscope	...	More than 10MHz
4. Trap Adjuster	...	31.9MHz/33.4MHz/ 40.4MHz
5. Power Supply	...	5V/12V/30V/45V
6. Jumper Wire		

A. VIF Sweep Adjustment

Test equipment connection

1. Supply the +30V power supply to the tuner BT terminal.
2. Connect P7101 to the main P.C. board (VEP0739).
3. Connect the jumper wire between Pin 4, 5 and 6 of the connector P7104.
4. Connect the jumper wire between RF AGC terminal and ground of tuner (TNV77401F2).
5. Connect a resistor 100Ω between TP708 and TP709.
6. Connect the bias connector to TP704.
7. Connect the from Rec terminal of VIF sweep generator to TP707.
8. Set the channel selector to the high TV channel. (VHF high: 12 ch. UHF high: 68 ch.)
9. Connect the output of VIF sweep generator to tuner test point TP7102.

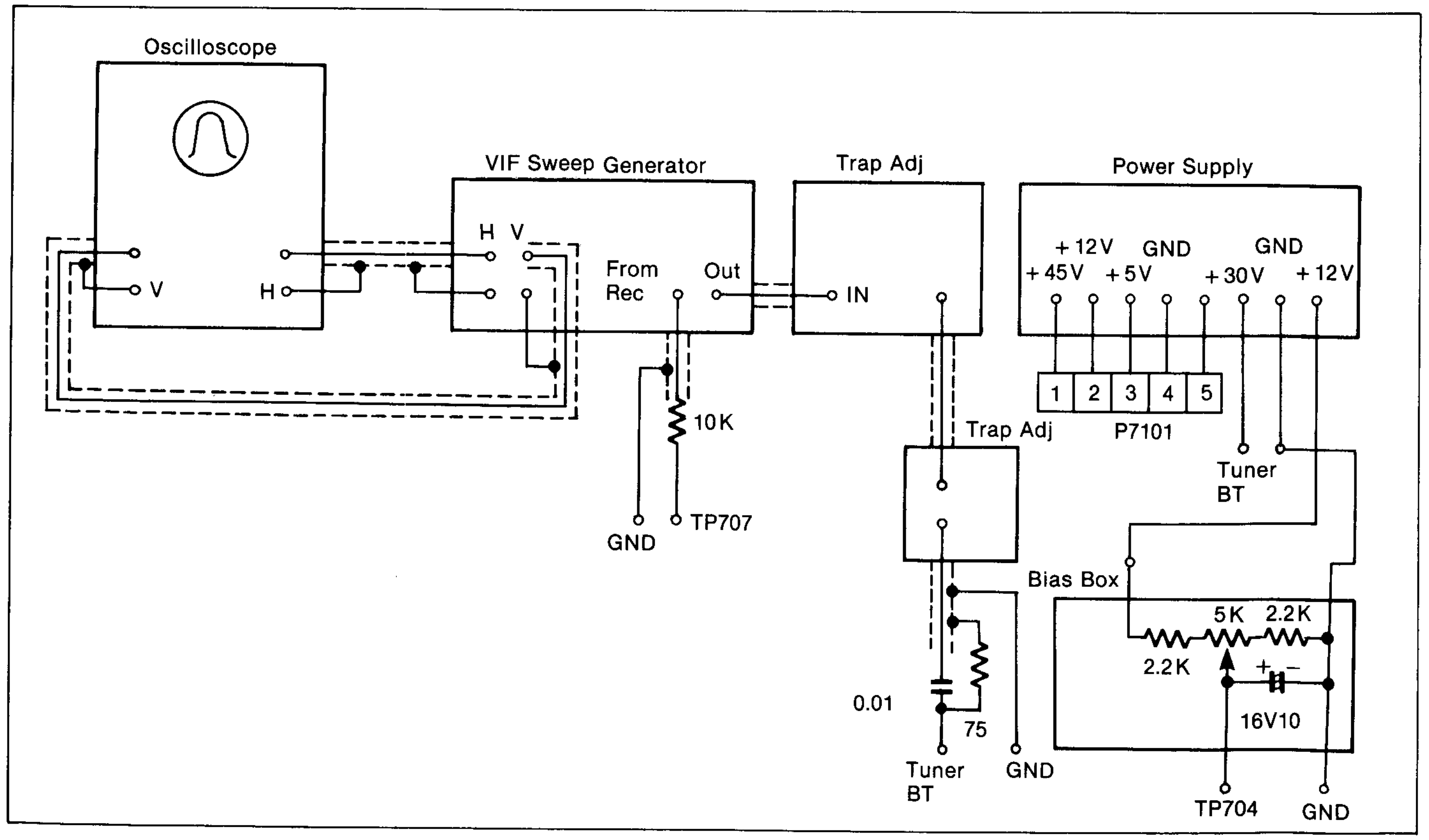
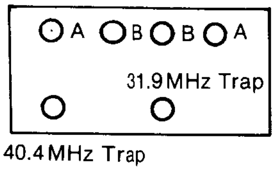

Oscilloscope
V
H
VIF Sweep Generator
H V
From Rec
Out
Trap Adj
IN
Power Supply
+12V GND GND
+45V +5V +30V +12V
1 2 3 4 5
P7101
Tuner BT
Trap Adj
10K
GND
TP707
Bias Box
5K 2.2K
2.2K
16V10
0.01
75
Tuner BT
GND
TP704
GND

Fig. 1 Test Equipment Connection

10. Confirm that 0V is supplied to BS terminal and +12V is supplied to BV terminal of tuner.
11. Remove the bias connector from TP704.
12. Adjust the output of VIF sweep generator so that the level of sweep output becomes 1.0Vp-p.
13. Release 20dB from the attenuator of sweep generator.
14. Adjust the IF AGC bias so that the sweep wave becomes 1.0Vp-p.
15. Adjust T703 so that the attenuation of 33.4MHz trap becomes maximum.
16. Adjust T705 (40.4MHz trap) so that the attenuation of 40.4MHz becomes maximum.
17. Adjust the tuner converter coil and T705 (A coil) so that the sweep output waveform becomes as shown in Fig. 3.



B Coil: B Coil adjustment is required, if VIF waveform can not meet as shown in Fig. 2.

Fig. 2 IF Filter T705

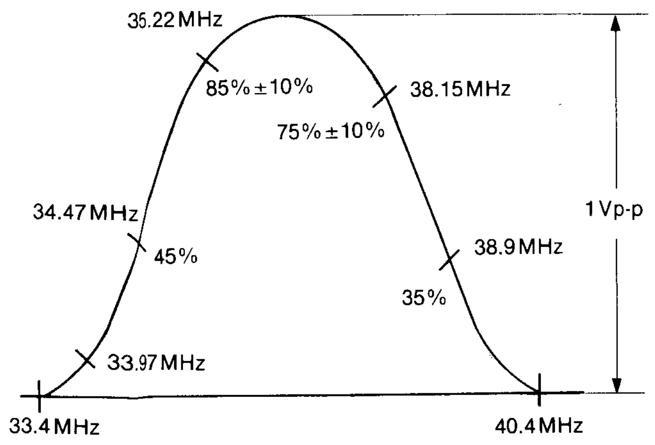


Fig. 3 VIF Waveform

B. 38.9MHz Tuning Coil Adjustment

1. Test equipment connection is same as VIF Sweep adjustment.
2. Connect the output of VIF sweep generator to TP703.
3. Adjust the sweep out so that the sweep wave becomes 0.3Vp-p as shown in Fig.4.
4. Adjust T702 so that the marker position of 38.9MHz becomes maximum as shown in Fig. 4.

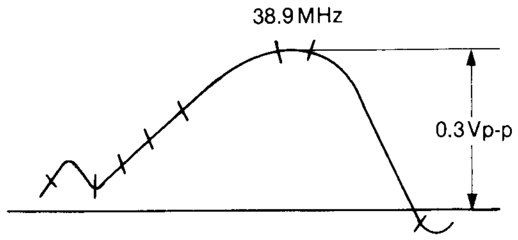


Fig. 4

5. After item 4 is completed, adjust T701 so that the marker position of 38.9MHz area becomes as shown in Fig. 5.

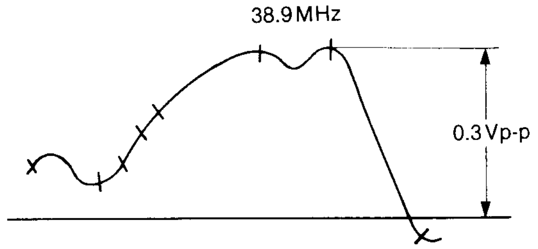


Fig. 5

C. SIF Sweep Adjustment

1. Connect the output of SIF sweep generator to TP706.
2. Connect the input of oscilloscope to TP710.
3. Connect the power supply to P7101.

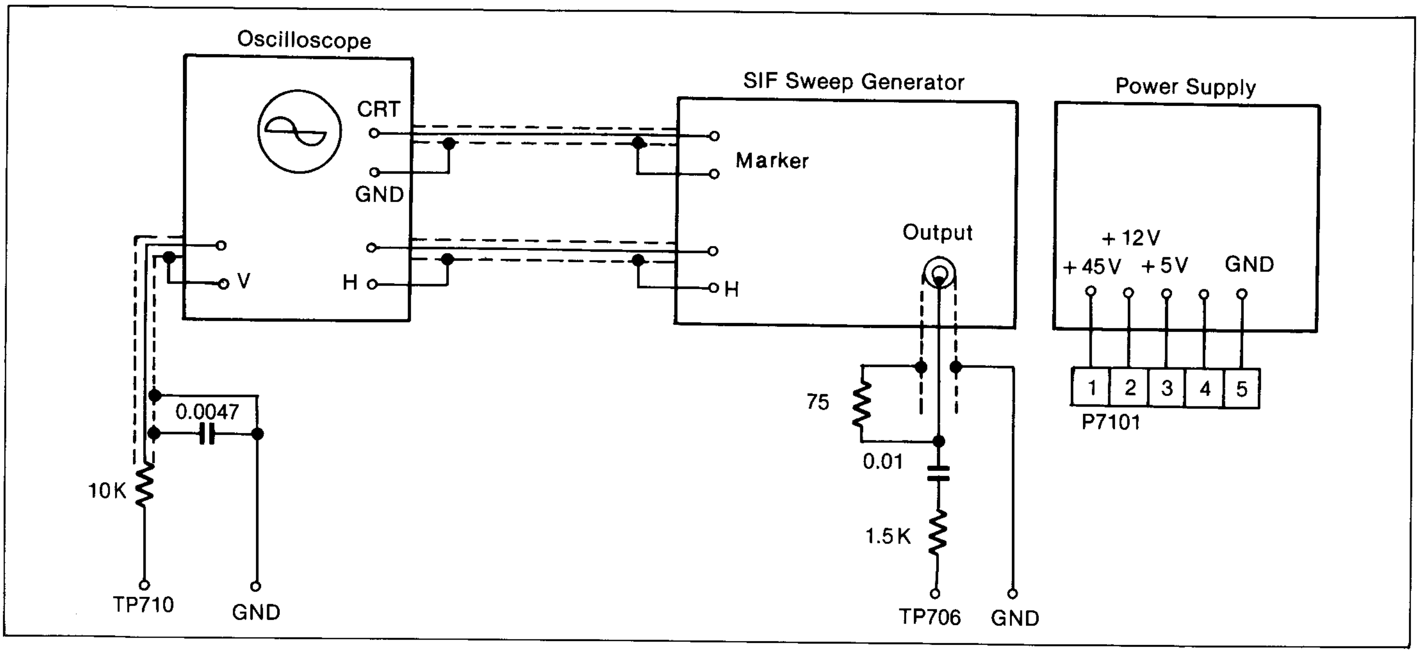

Oscilloscope
CRT
GND
V
H
SIF Sweep Generator
Marker
Output
H
Power Supply
+12V
+45V
+5V
GND
1
2
3
4
5
P7101
0.0047
10K
TP710
GND
75
0.01
1.5K
TP706
GND

Fig. 6 Test Equipment Connection

4. Set the sweep output to 250Vr.m.s, 75Ω unbalanced.
5. Adjust T704 for maximum peak-to-peak amplitude of response "A" curve as shown in Fig. 7.
6. Confirm that the level between the 150KHz marker position is more than 2.0V.

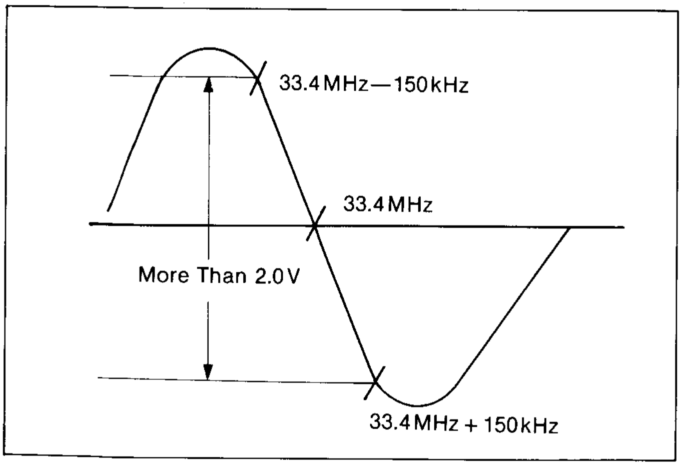

33.4MHz—150kHz
33.4MHz
More Than 2.0V
33.4MHz + 150kHz

Fig. 7 Response "A" Curve

D. AFC Adjustment

1. Connect CW Oscillator to Tuner TP and supply 38.9MHz CW signal.
2. Adjust the 38.9MHz CW signal for satulation level at TP707.
3. Connect the VTVM to Tuner AFC terminal.
4. Set the AFC switch "ON".
5. Adjust T701 so that the level at AFC terminal becomes 6.5 ± 0.3V.
6. Change the frequency of CW oscillator ± 100KHz, centerd at 38.9MHz and confirm that the change of AFC voltage is more than 2V.

E. Confirmation of Video level/Adjustment of burst level

1. Supply the PAL Standard Colour Bar signal to ANT.
2. Connect the resistor 75Ω between Pin 2-3 of P703.
3. Connect the oscilloscope to TP702.
4. Confirm that the video level at TP702 is 1.0 ± 0.2Vp-p as shown in Fig. 8.
5. Adjust R709 so that the burst level becomes 200 ± 20mVp-p as shown in Fig. 8.

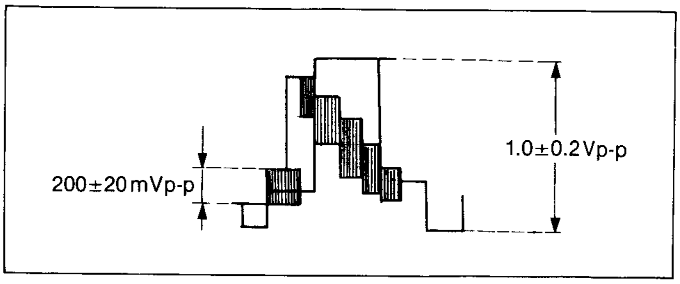

200±20mVp-p
1.0±0.2Vp-p

Fig. 8 Video and Burst Levels

ADJUSTMENT OF TV DEMODULATOR

MODEL: NV-V800B

This section provides complete electrical adjustment procedures which may be required for TV demodulator circuit.

Test Equipment
To make adjustments completely, following equipment is required.

1. VIF Sweep Generator	...	39.5MHz
2. SIF Sweep Generator	...	33.5MHz ± 150KHz
3. Oscilloscope	...	More than 10MHz
4. Trap Adjuster	...	32.0MHz/33.5MHz/ 41.5MHz
5. Power Supply	...	5V/12V/30V/45V
6. Jumper Wire		

A. VIF Sweep Adjustment
Test equipment connection

1. Supply the +30V power supply to the tuner BT terminal.
2. Connect P7101 to the main P.C. board (VEP0739).
3. Connect the jumper wire between Pin 4, 5 and 6 of the connector P7104.
4. Connect the jumper wire between RF AGC terminal and ground of tuner (TNV87401EFR).
5. Connect a resistor 100Ω between TP708 and TP709.
6. Connect the bias connector to TP704.
7. Connect the from Rec terminal of VIF sweep generator to TP707.
8. Set the channel selector to the high TV channel.
(UHF high: 68ch)
9. Connect the output of VIF sweep generator to tuner test point TP7102.

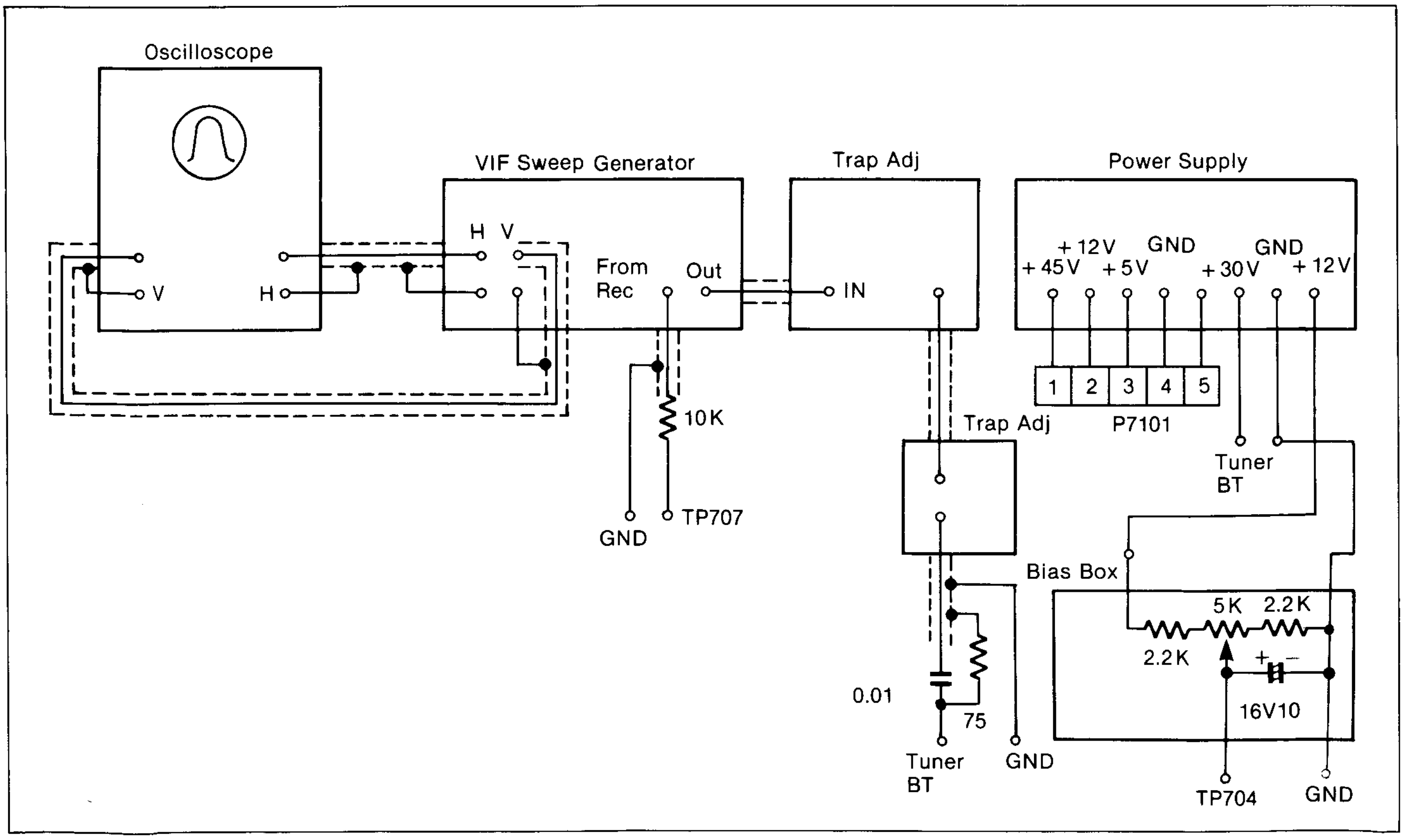
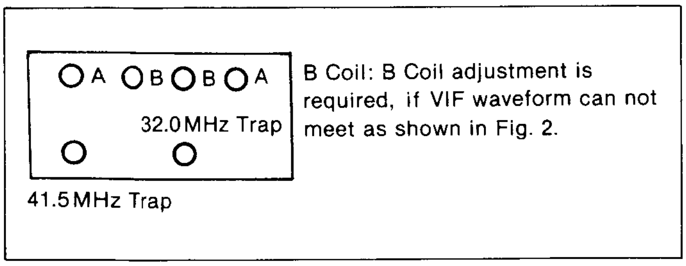

Oscilloscope
V
H
VIF Sweep Generator
H V
From Rec
Out
10K
GND
TP707
Trap Adj
IN
Trap Adj
0.01
75
Tuner BT
GND
Bias Box
Power Supply
+12V
GND
GND
+45V
+5V
+30V
+12V
1
2
3
4
5
P7101
Tuner BT
5K
2.2K
2.2K
16V10
TP704
GND

Fig. 1 Test Equipment Connection

10. Confirm that 0V is supplied to BS terminal and +12V is supplied to BV terminal of tuner.
11. Remove the bias connector from TP704.
12. Adjust the output of VIF sweep generator so that the level of sweep output becomes 1.0Vp-p.
13. Release 20dB from the attenuator of sweep generator.
14. Adjust the IF AGC bias so that the sweep wave becomes 1.0Vp-p.
15. Adjust T703 so that the attenuation of 33.5MHz trap becomes maximum.
16. Adjust T705 (41.5MHz trap) so that the attenuation of 41.5MHz becomes maximum.
17. Adjust the tuner converter coil and T705 (A coil) so that the sweep output waveform becomes as shown in Fig. 3.



B Coil: B Coil adjustment is required, if VIF waveform can not meet as shown in Fig. 2.

Fig. 2 IF Filter T705

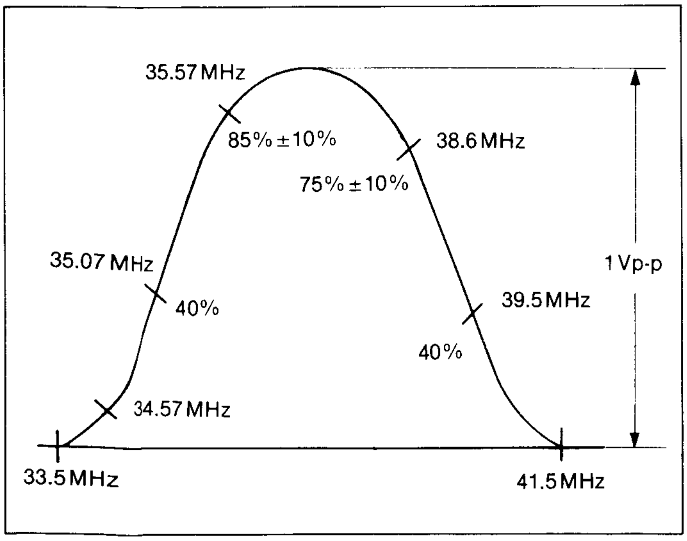


Fig. 3 VIF Waveform

B. 39.5MHz Tuning Coil Adjustment

1. Test equipment connection is same as VIF Sweep adjustment.
2. Connect the output of VIF sweep generator to TP703.
3. Adjust the sweep out so that the sweep wave becomes 0.1Vp-p as shown in Fig.4.
4. Adjust T702 so that the marker position of 39.5MHz becomes maximum as shown in Fig. 4.

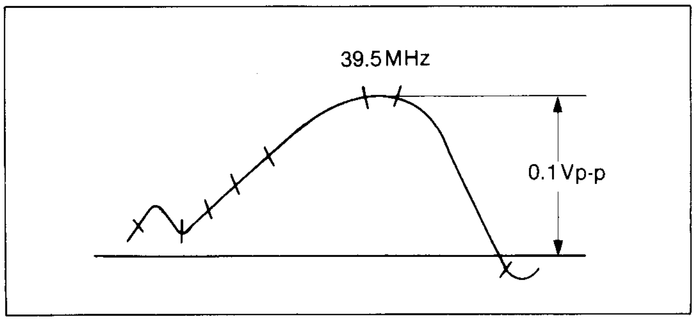


Fig. 4

5. After item 4 is completed, adjust T701 so that the marker position of 39.5MHz area becomes as shown in Fig. 5.

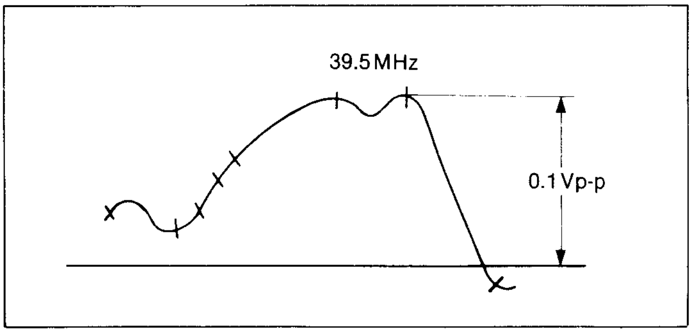


Fig. 5

C. SIF Sweep Adjustment

1. Connect the output of SIF sweep generator to TP706.
2. Connect the input of oscilloscope to TP710.
3. Connect the power supply to P7101.

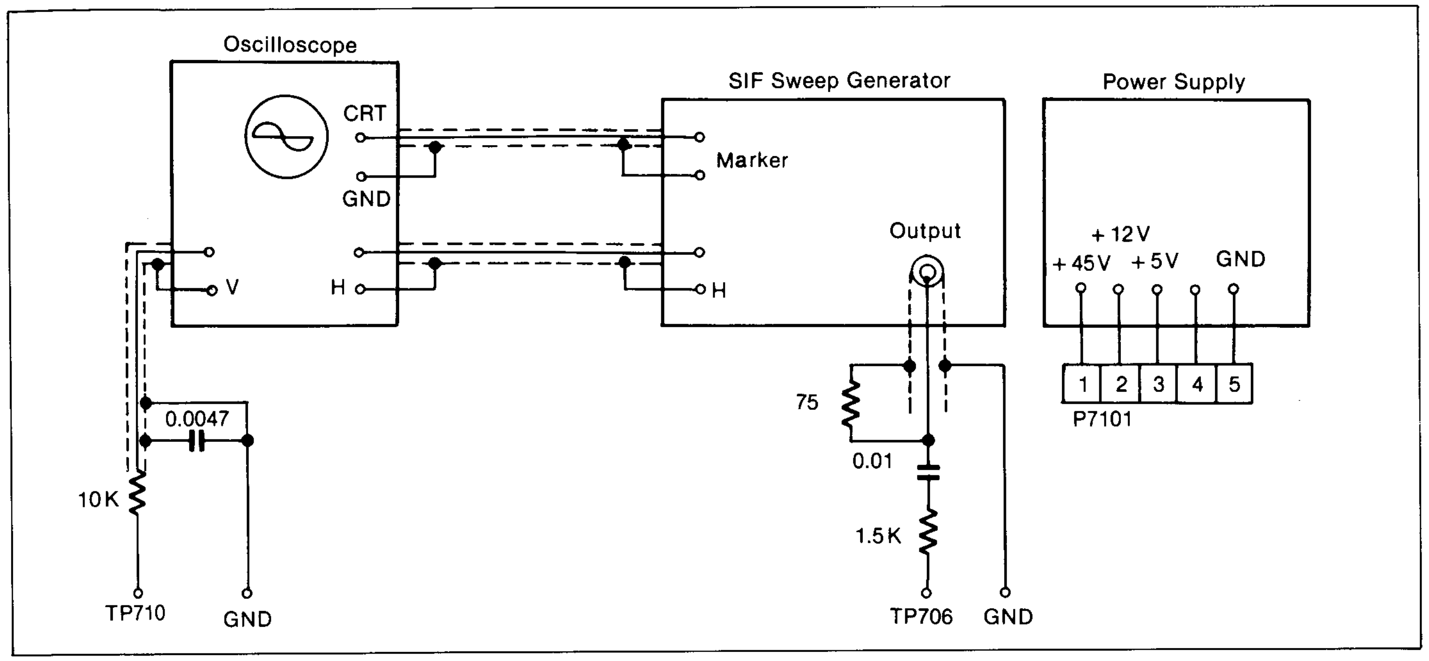

Oscilloscope
CRT
GND
V
H
SIF Sweep Generator
Marker
Output
H
Power Supply
+12V
+45V
+5V
GND
1
2
3
4
5
P7101
75
0.01
1.5K
TP706
GND
0.0047
10K
TP710
GND

Fig. 6 Test Equipment Connection

4. Set the sweep output to 250Vr.m.s, 75Ω unbalanced.
5. Adjust T704 for maximum peak-to-peak amplitude of response "A" curve as shown in Fig. 7.
6. Confirm that the level between the 150KHz marker positions is more than 2.0V.

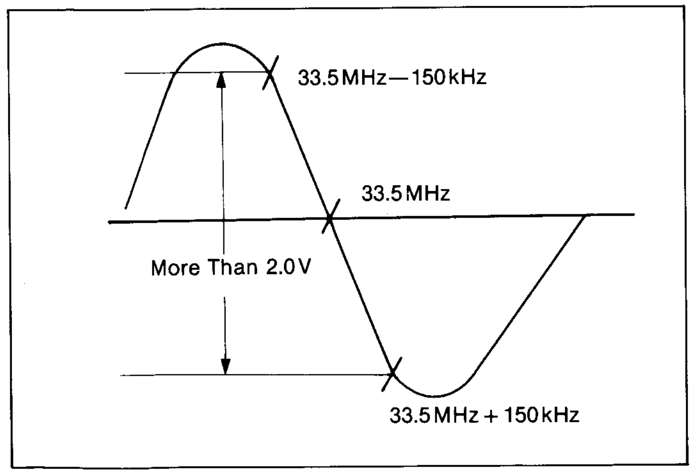


Fig. 7 Response "A" Curve

D. AFC Adjustment

1. Connect CW Oscillator to Tuner TP and supply 39.5MHz CW signal.
2. Adjust the 39.5MHz CW signal for satulation level at TP707.
3. Connect the VTVM to Tuner AFC terminal.
4. Set the AFC switch "ON"
5. Adjust T701 so that the level at AFC terminal becomes 6.5 ± 0.3V.
6. Change the frequency of CW oscillator ± 100KHz, centerd at 39.5MHz and confirm that the change of AFC voltage is more than 2V.

E. Confirmation of Video level/Adjustment of burst level

1. Supply the PAL Standard Colour Bar signal to ANT.
2. Connect the resistor 75Ω between Pin 2-3 of P703.
3. Connect the oscilloscope to TP702.
4. Confirm that the video level at TP702 is 1.0 ± 0.2Vp-p as shown in Fig. 8.
5. Adjust R709 so that the burst level becomes 200 ± 20mVp-p as shown in Fig. 8.

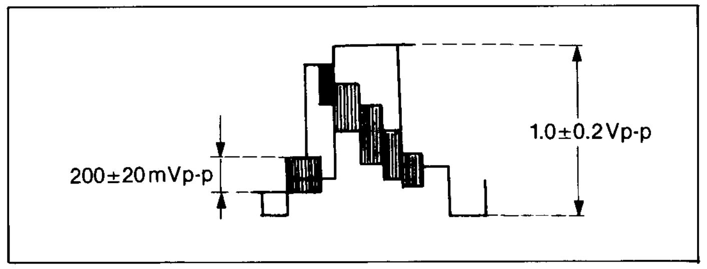
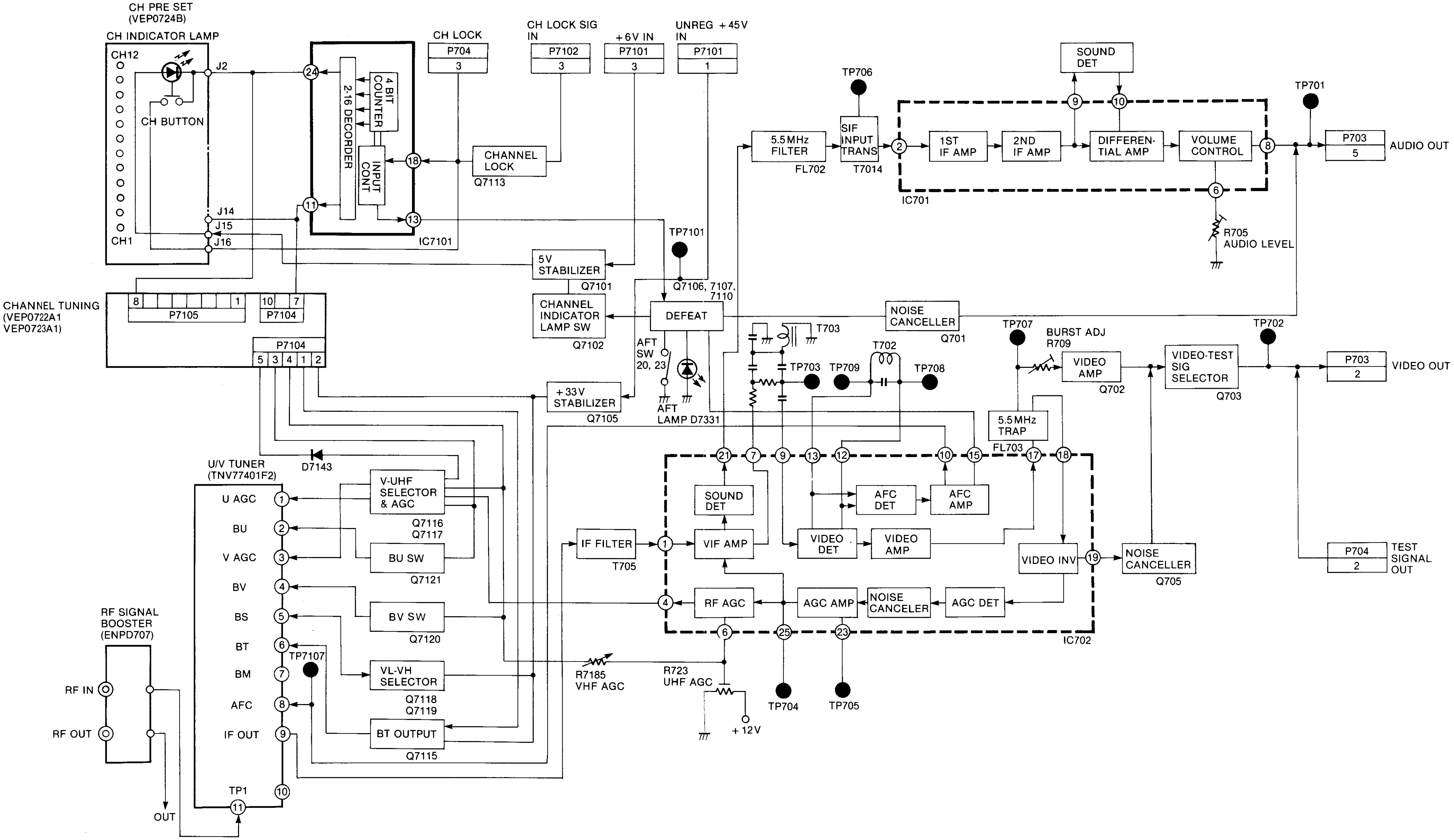


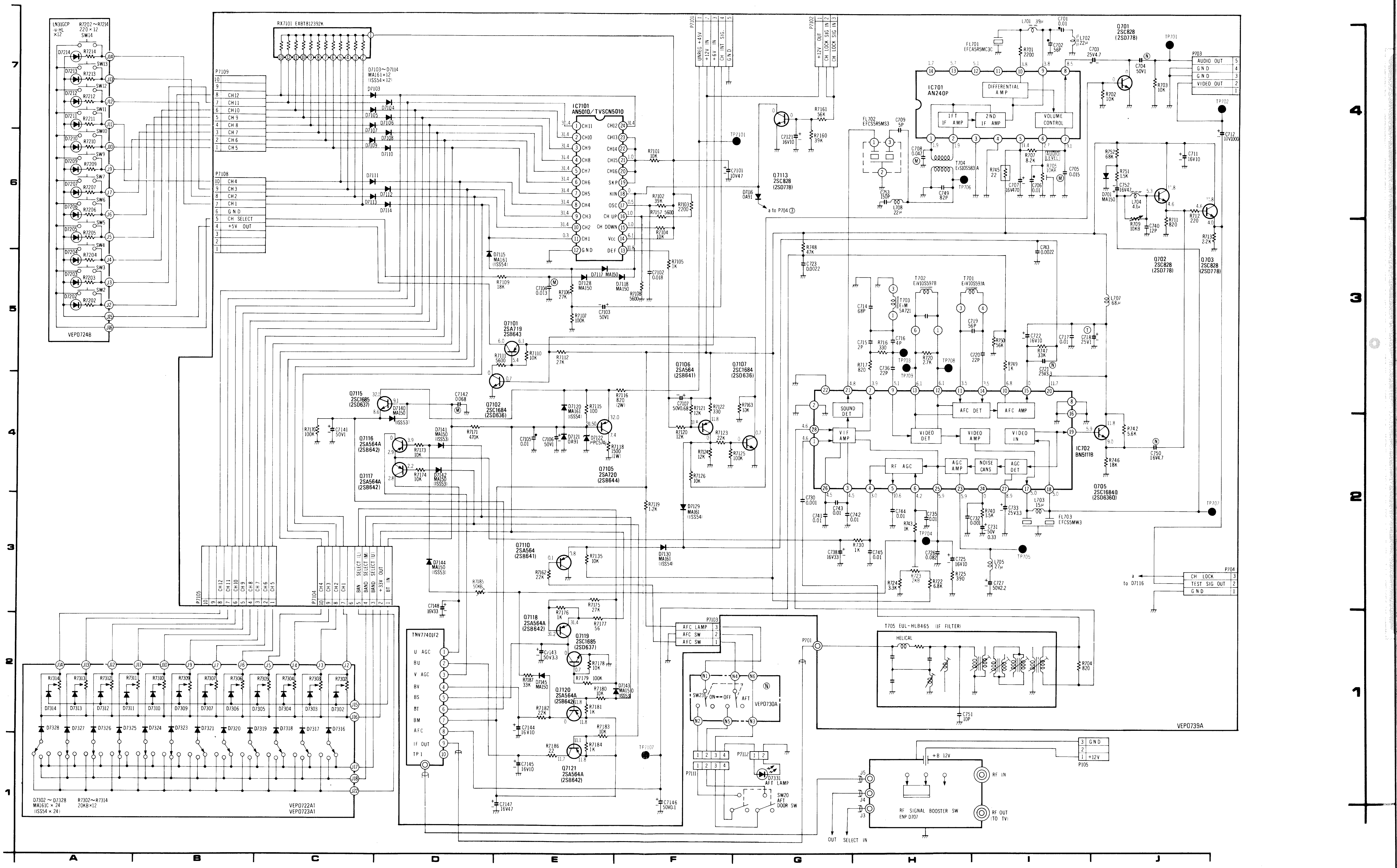
Fig. 8 Video and Burst Levels

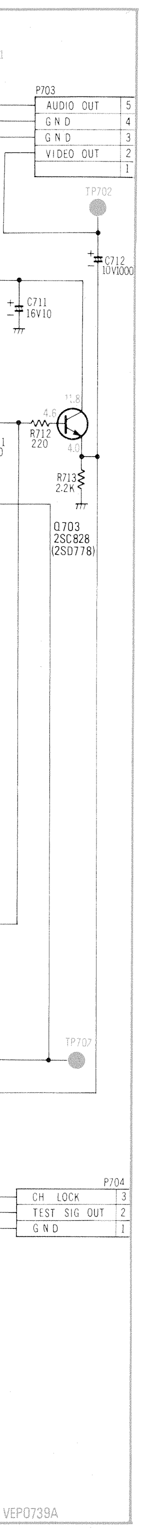
MEMO

NV-V800E CHANNEL SELECT & TV DEMODULATOR BLOCK DIAGRAM

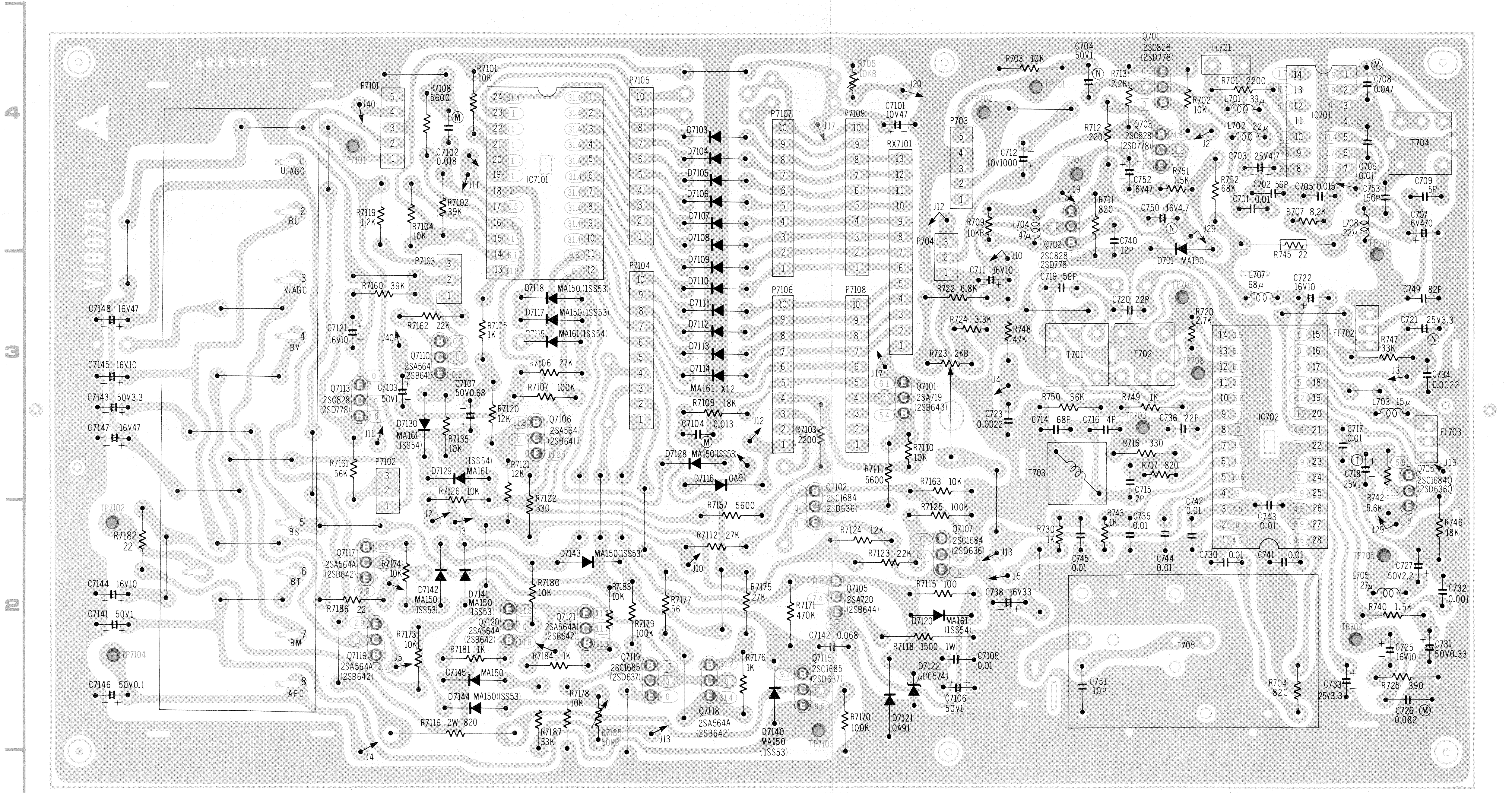

CH PRE SET
(VEP0724B)
CH INDICATOR LAMP
CH12
CH1
CH BUTTON
J2
J14
J15
J16
2-16 DECORDER
4 BIT COUNTER
INPUT CONT
IC7101
CH LOCK
P704
3
CH LOCK SIG IN
P7102
3
+6V IN
P7101
3
UNREG +45V IN
P7101
1
CHANNEL LOCK
Q7113
5V STABILIZER
Q7101
CHANNEL INDICATOR LAMP SW
Q7102
TP7101
Q7106, 7107, 7110
DEFEAT
AFT SW 20, 23
AFT LAMP D7331
+33V STABILIZER
Q7105
CHANNEL TUNING
(VEP0722A1
VEP0723A1)
P7105
P7104
U/V TUNER
(TNV77401F2)
D7143
U AGC
BU
V AGC
BV
BS
BT
BM
AFC
IF OUT
TP1
TP7107
V-UHF SELECTOR & AGC
Q7116
Q7117
BU SW
Q7121
BV SW
Q7120
VL-VH SELECTOR
Q7118
Q7119
BT OUTPUT
Q7115
RF SIGNAL BOOSTER
(ENPD707)
RF IN
RF OUT
OUT
R7185
VHF AGC
R723
UHF AGC
+12V
IF FILTER
T705
VIF AMP
SOUND DET
RF AGC
AGC AMP
NOISE CANCELER
AGC DET
VIDEO DET
VIDEO AMP
AFC DET
AFC AMP
VIDEO INV
IC702
TP704
TP705
T703
T702
TP703
TP709
TP708
5.5MHz TRAP
FL703
TP707
BURST ADJ
R709
VIDEO AMP
Q702
VIDEO-TEST SIG SELECTOR
Q703
TP702
P703
2
VIDEO OUT
NOISE CANCELLER
Q705
P704
2
TEST SIGNAL OUT
NOISE CANCELLER
Q701
5.5MHz FILTER
FL702
TP706
SIF INPUT TRANS
T7014
1ST IF AMP
2ND IF AMP
DIFFEREN-TIAL AMP
VOLUME CONTROL
SOUND DET
IC701
R705
AUDIO LEVEL
TP701
P703
5
AUDIO OUT

NV-V800E CHANNEL SELECT & TV DEMODULATOR SCHEMATIC DIAGRAM


RX7101 EXBT812392K
IC7101 AN5010/TVSCN5010
P7109
P7108
CH SELECT
+5V OUT
VEP0724B
LN31GCP
D7103~D7114 MA161×12 (ISS54×12)
Q7101 2SA719 (2SB643)
Q7102 2SC1684 (2SD636)
Q7115 2SC1685 (2SD637)
Q7116 2SA564A (2SB642)
Q7117 2SA564A (2SB642)
Q7105 2SA720 (2SB644)
Q7106 2SA564 (2SB641)
Q7107 2SC1684 (2SD636)
Q7110 2SA564 (2SB641)
Q7118 2SA564A (2SB642)
Q7119 2SC1685 (2SD637)
Q7120 2SA564A (2SB642)
Q7121 2SA564A (2SB642)
Q7113 2SC828 (2SD778)
P7105
P7104
TNV7740IF2
U AGC
BU
V AGC
BV
BS
BT
BM
AFC
IF OUT
TP1
D7302~D7328 MA161C×24 (ISS54×24)
R7302~R7314 20KB×12
VEP0722A1
VEP0723A1
P7103
AFC LAMP
AFC SW
VEP0730A
SW21 ON OFF AFT
P7111
P7112
D7331 AFT LAMP
SW20 AFT DOOR SW
P7101
UNREG +45V
+12V IN
+6V IN
CH INT SIG
GND
P7102
+12V OUT
CH LOCK SIG IN
CH LOCK SIG IN
IC701 AN240P
DIFFERENTIAL AMP
1ST IF AMP
2ND IF AMP
VOLUME CONTROL
AUDIO LEVEL
FL701 EFCA5R5MC3C
FL702 EFCS5R5MS3
T704 EJS10S583A
Q701 2SC828 (2SD778)
Q702 2SC828 (2SD778)
Q703 2SC828 (2SD778)
P703
AUDIO OUT
GND
GND
VIDEO OUT
T702 EJV10S597B
T701 EJV10S597A
T703 EJ1M 5A721
IC702 BN5111B
SOUND DET
VIF AMP
AFC DET
AFC AMP
VIDEO DET
VIDEO AMP
VIDEO IN
RF AGC
AGC AMP
NOISE CANS
AGC DET
FL703 EFCS5MW3
Q705 2SC1684O (2SD636O)
P704
CH LOCK
TEST SIG OUT
GND
to D7116
T705 EUL-HL8465 (IF FILTER)
HELICAL
VEP0739A
P701
P105
GND
+12V
+B 12V
RF IN
RF OUT (TO TV)
RF SIGNAL BOOSTER SW ENP D707
OUT
SELECT IN
A
B
C
D
E
F
G
H
I
J
7
6
5
4
3
2
1


P703
AUDIO OUT
GND
GND
VIDEO OUT
TP702
C712 10V1000
C711 16V10
R712 220
R713 2.2K
Q703 2SC828 (2SD778)
TP707
P704
CH LOCK
TEST SIG OUT
GND
VEP0739A

NV-V800E CHANNEL SELECT & TV DEMODULATOR CIRCUIT BOARD (VEP0739A)


VJB0739
3456789
4
3
2
1
U. AGC
BU
V. AGC
BV
BS
BT
BM
AFC
IC7101
IC701
IC702
P7101
P7102
P7103
P7104
P7105
P7106
P7107
P7108
P7109
P703
P704
RX7101
T701
T702
T703
T704
T705
FL701
FL702
FL703
TP701
TP702
TP703
TP704
TP705
TP706
TP707
TP708
TP709
TP7101
TP7102
TP7103
TP7104
Q701 2SC828 (2SD778)
Q702 2SC828 (2SD778)
Q703 2SC828 (2SD778)
Q705 2SC1684Q (2SD636Q)
Q7101 2SA719 (2SB643)
Q7102 2SC1684 (2SD636)
Q7105 2SA720 (2SB644)
Q7106 2SA564 (2SB641)
Q7107 2SC1684 (2SD636)
Q7110 2SA564 (2SB641)
Q7113 2SC828 (2SD778)
Q7115 2SC1685 (2SD637)
Q7116 2SA564A (2SB642)
Q7117 2SA564A (2SB642)
Q7118 2SA564A (2SB642)
Q7119 2SC1685 (2SD637)
Q7120 2SA564A (2SB642)
Q7121 2SA564A (2SB642)
D701 MA150
D7103
D7104
D7105
D7106
D7107
D7108
D7109
D7110
D7111
D7112
D7113
D7114
MA161 X12
D7116 OA91
D7117 MA150 (1SS53)
D7118 MA150 (1SS53)
D7115 MA161 (1SS54)
D7120 MA161 (1SS54)
D7121 OA91
D7122 μPC574J
D7128 MA150 (1SS53)
D7129 (1SS54) MA161
D7130 MA161 (1SS54)
D7140 MA150 (1SS53)
D7141 MA150 (1SS53)
D7142 MA150 (1SS53)
D7143 MA150 (1SS53)
D7144 MA150 (1SS53)
D7145 MA150
R7116 2W 820
R7118 1500 1W
R704 820
R725 390
R740 1.5K
C751 10P
C726 0.082
A
B
C
D
E
F

P7103

1	AFC SW
2	AFC SW
3	AFC LAMP

P7101

1	UNREG +45V
2	+12V IN
3	+6V IN
4	CH INT SIG
5	GND

P7102

1	+12V OUT
2	CH LOCK SIG IN
3	CH LOCK SIG IN

P703

1	
2	VIDEO OUT
3	GND
4	GND
5	AUDIO OUT

P7104

1	BT IN
2	+33V OUT
3	BAND SELECT (L)
4	BAND SELECT (M)
5	BAND SELECT (U)
6	
7	CH 1
8	CH 2
9	CH 3
10	CH 4

P7105

1	CH 5
2	CH 6
3	CH 7
4	CH 8
5	CH 9
6	CH 10
7	CH 11
8	CH 12
9	
10	

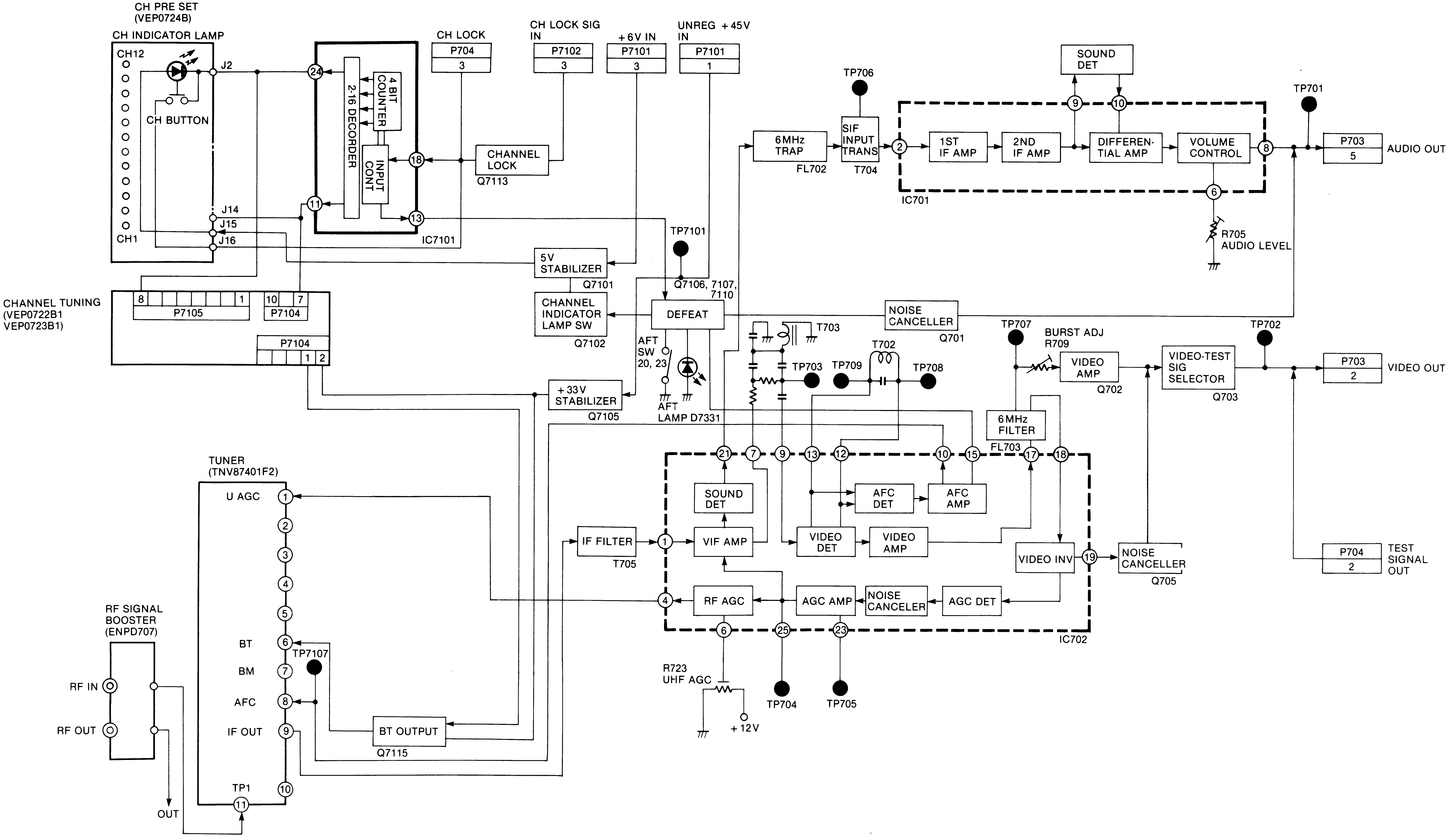
P7108

1	
2	
3	
4	+5V OUT
5	CH SELECT
6	GND
7	CH 1
8	CH 2
9	CH 3
10	CH 4

P7109

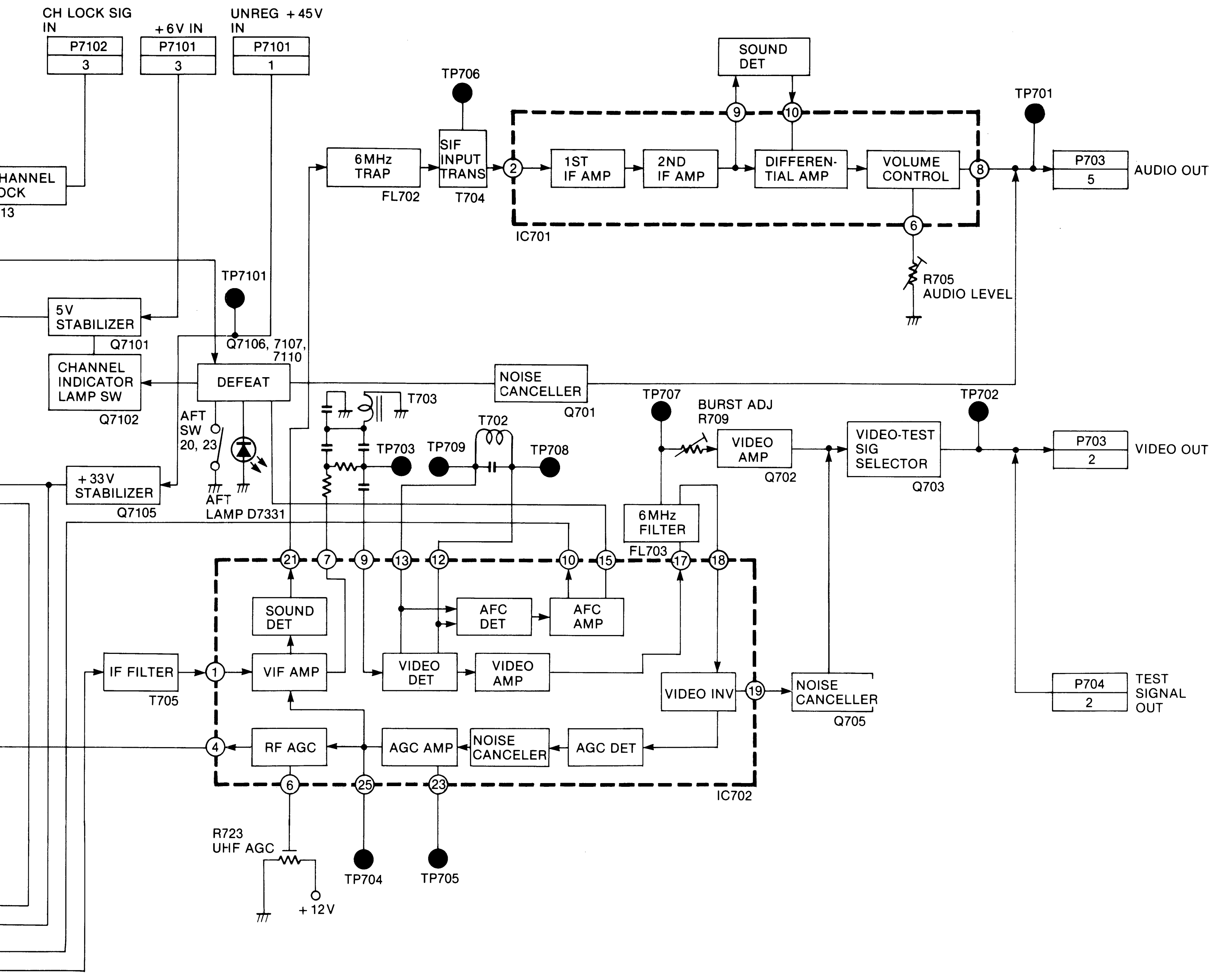
1	CH 5
2	CH 6
3	CH 7
4	CH 8
5	CH 9
6	CH 10
7	CH 11
8	CH 12
9	
10	

NV-V800B CHANNEL SELECT & TV DEMODULATOR BLOCK DIAGRAM

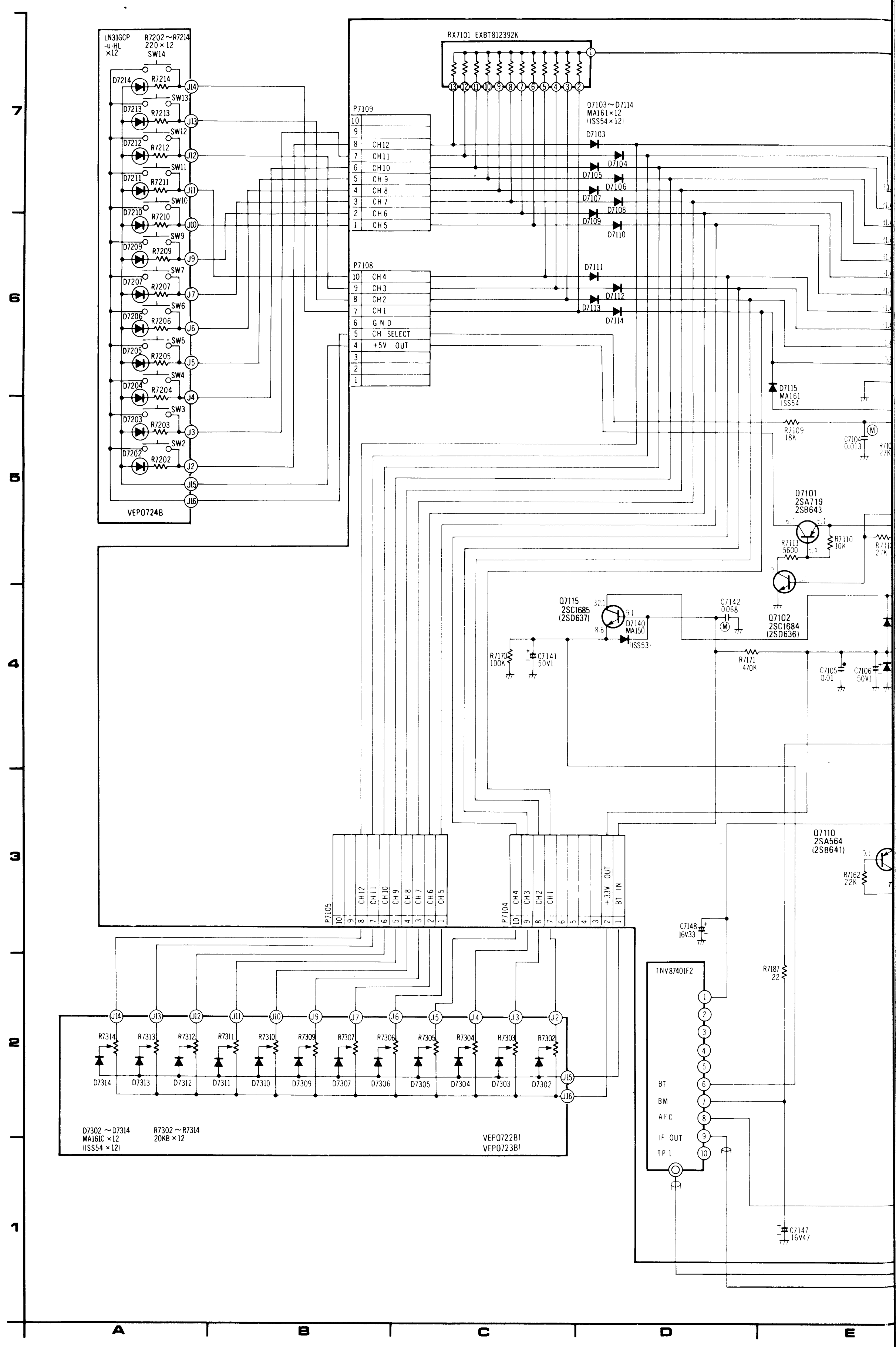


CH PRE SET
(VEP0724B)
CH INDICATOR LAMP
CH12
CH BUTTON
CH1
J2
J14
J15
J16
2-16 DECORDER
4 BIT COUNTER
INPUT CONT
IC7101
CH LOCK
P704
3
CH LOCK SIG IN
P7102
3
+6V IN
P7101
3
UNREG +45V IN
P7101
1
CHANNEL LOCK
Q7113
5V STABILIZER
Q7101
CHANNEL INDICATOR LAMP SW
Q7102
DEFEAT
Q7106, 7107, 7110
TP7101
AFT SW 20, 23
AFT LAMP D7331
+33V STABILIZER
Q7105
CHANNEL TUNING
(VEP0722B1
VEP0723B1)
P7105
P7104
8
1
10
7
2
TP706
6MHz TRAP
FL702
SIF INPUT TRANS
T704
1ST IF AMP
2ND IF AMP
SOUND DET
DIFFEREN-TIAL AMP
VOLUME CONTROL
IC701
R705 AUDIO LEVEL
TP701
P703
5
AUDIO OUT
NOISE CANCELLER
Q701
T703
T702
TP703
TP709
TP708
TP707
BURST ADJ R709
VIDEO AMP
Q702
VIDEO-TEST SIG SELECTOR
Q703
TP702
P703
2
VIDEO OUT
6MHz FILTER
FL703
TUNER
(TNV87401F2)
U AGC
BT
BM
AFC
IF OUT
TP1
TP7107
BT OUTPUT
Q7115
RF SIGNAL BOOSTER
(ENPD707)
RF IN
RF OUT
OUT
IF FILTER
T705
SOUND DET
VIF AMP
AFC DET
AFC AMP
VIDEO DET
VIDEO AMP
VIDEO INV
RF AGC
AGC AMP
NOISE CANCELER
AGC DET
IC702
NOISE CANCELLER
Q705
P704
2
TEST SIGNAL OUT
R723 UHF AGC
+12V
TP704
TP705

EMODULATOR BLOCK DIAGRAM


CH LOCK SIG IN
P7102
3
+6V IN
P7101
3
UNREG +45V IN
P7101
1
HANNEL
OCK
13
TP706
SOUND DET
TP701
6MHz TRAP
FL702
SIF INPUT TRANS
T704
1ST IF AMP
2ND IF AMP
DIFFEREN-TIAL AMP
VOLUME CONTROL
IC701
P703
5
AUDIO OUT
R705 AUDIO LEVEL
TP7101
5V STABILIZER
Q7101
Q7106, 7107, 7110
CHANNEL INDICATOR LAMP SW
Q7102
DEFEAT
AFT SW 20, 23
AFT LAMP D7331
+33V STABILIZER
Q7105
NOISE CANCELLER
Q701
T703
T702
TP703
TP709
TP708
TP707
BURST ADJ R709
VIDEO AMP
Q702
TP702
VIDEO-TEST SIG SELECTOR
Q703
P703
2
VIDEO OUT
6MHz FILTER
FL703
SOUND DET
AFC DET
AFC AMP
IF FILTER
T705
VIF AMP
VIDEO DET
VIDEO AMP
VIDEO INV
NOISE CANCELLER
Q705
P704
2
TEST SIGNAL OUT
RF AGC
AGC AMP
NOISE CANCELER
AGC DET
IC702
R723 UHF AGC
+12V
TP704
TP705

NV-V800B CHANNEL SELECT & TV DEMODULAT

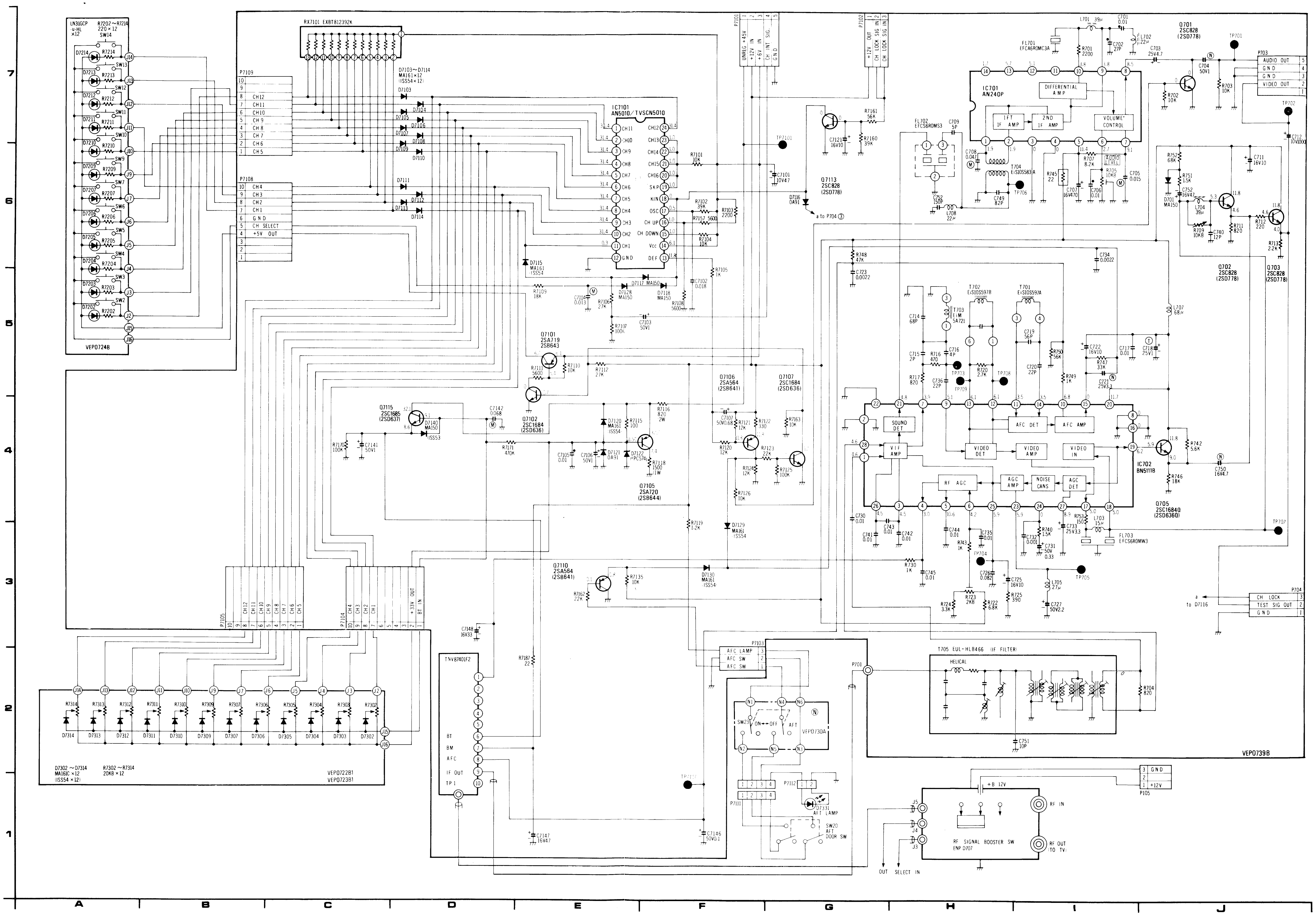

7
6
5
4
3
2
1
A
B
C
D
E
VEPD724B
RX7101 EXBT812392K
P7109
P7108
CH12
CH11
CH10
CH9
CH8
CH7
CH6
CH5
CH4
CH3
CH2
CH1
GND
CH SELECT
+5V OUT
Q7101 2SA719 (2SB643)
Q7102 2SC1684 (2SD636)
Q7115 2SC1685 (2SD637)
Q7110 2SA564 (2SB641)
P7105
P7104
VEPD722B1
VEPD723B1
TNV87401F2
BT
BM
AFC
IF OUT
TP1

NV-V800B CHANNEL SELECT & TV DEMODULATOR SCHEMATIC DIAGRAM

703
5
AUDIO OUT

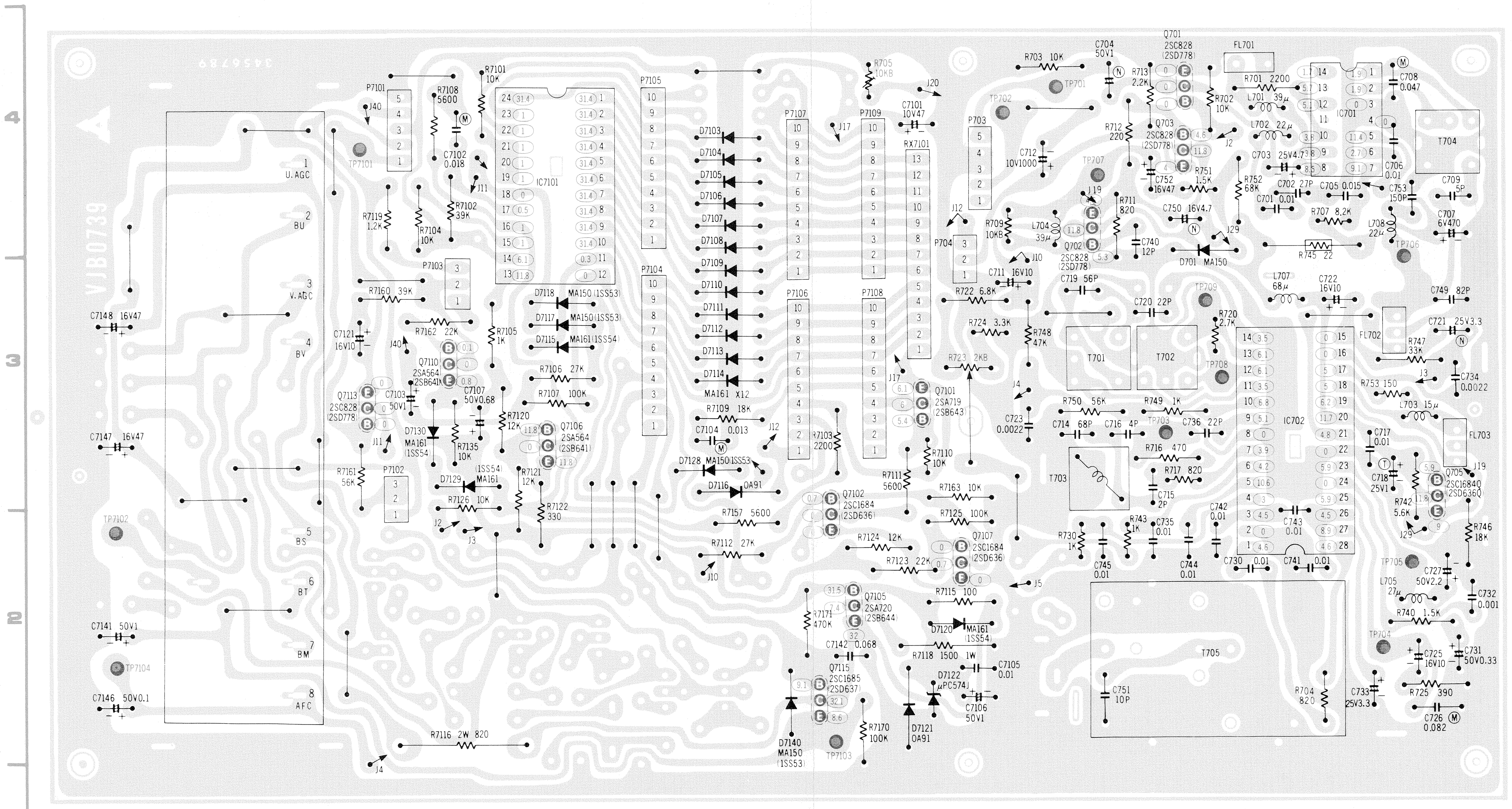
703
2
VIDEO OUT

704
2
TEST
SIGNAL
OUT



7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
LN31GCP
R7202~R7214 220×12
SW14
VEP0724B
P7109
CH12
CH11
CH10
CH9
CH8
CH7
CH6
CH5
P7108
CH4
CH3
CH2
CH1
GND
CH SELECT
+5V OUT
RX7101 EXBT812392K
D7103~D7114 MA161×12 (ISS54×12)
IC7101 AN5010/TVSCN5010
P7101
UNREG +45V
+12V IN
+6V IN
CH INT SIG.
GND
P7102
+12V OUT
CH LOCK SIG IN
CH LOCK SIG IN
Q7113 2SC828 (2SD778)
Q7101 2SA719 2SB643
Q7102 2SC1684 (2SD636)
Q7115 2SC1685 (2SD637)
Q7105 2SA720 (2SB644)
Q7106 2SA564 (2SB641)
Q7107 2SC1684 (2SD636)
Q7110 2SA564 (2SB641)
P7105
P7104
+33V OUT
BT IN
TNV87401F2
BT
BM
AFC
IF OUT
TP1
D7302~D7314 MA161C×12 (ISS54×12)
R7302~R7314 20KB×12
VEP0722B1
VEP0723B1
P7103
AFC LAMP
AFC SW
AFC SW
SW21
ON
OFF
AFT
VEP0730A
P7112
P7111
D7331
AFT LAMP
SW20
AFT
DOOR SW
FL701 EFCA6R0MC3A
IC701 AN240P
DIFFERENTIAL AMP
1FT IF AMP
2ND IF AMP
VOLUME CONTROL
FL702 EFCS6R0MS3
Q701 2SC828 (2SD778)
P703
AUDIO OUT
GND
GND
VIDEO OUT
Q702 2SC828 (2SD778)
Q703 2SC828 (2SD778)
T702 EXS10S597B
T701 EXS10S597A
T703 EIM 5A721
IC702 BN5111B
SOUND DET
VIF AMP
AFC DET
AFC AMP
VIDEO DET
VIDEO AMP
VIDEO IN
RF AGC
AGC AMP
NOISE CANS
AGC DET
Q705 2SC1684D (2SD636D)
FL703 EFCS6R0MW3
P704
CH LOCK
TEST SIG OUT
GND
a to D7116
T705 EUL-HLB466 (IF FILTER)
HELICAL
P701
VEP0739B
P105
GND
+12V
+B 12V
RF IN
RF OUT (TO TV)
RF SIGNAL BOOSTER SW ENP D707
OUT SELECT IN

NV-V800B CHANNEL SELECT & TV DEMODULATOR CIRCUIT BOARD (VEP0739B)


4
3
2
1
VJB0739
U.AGC
BU
V.AGC
BV
BS
BT
BM
AFC
P7101
P7102
P7103
P7104
P7105
P7106
P7107
P7108
P7109
P703
P704
IC7101
IC701
IC702
T701
T702
T703
T704
T705
FL701
FL702
FL703
Q701
Q702
Q703
Q705
Q7101
Q7102
Q7105
Q7106
Q7107
Q7110
Q7113
Q7115
TP701
TP702
TP703
TP704
TP705
TP706
TP707
TP708
TP709
TP7101
TP7102
TP7103
TP7104
MA161 X12
R7116 2W 820
R7118 1500 1W

P7103

1	AFC SW
2	AFC SW
3	AFC LAMP

P7101

1	UNREG +45V
2	+12V IN
3	+6V IN
4	CH INT SIG
5	GND

P7102

1	+12V OUT
2	CH LOCK SIG IN
3	CH LOCK SIG IN

P703

1	
2	VIDEO OUT
3	GND
4	GND
5	AUDIO OUT

P7104

1	BT IN
2	+33V OUT
3	BAND SELECT (L)
4	BAND SELECT (M)
5	BAND SELECT (U)
6	
7	CH 1
8	CH 2
9	CH 3
10	CH 4

P7105

1	CH 5
2	CH 6
3	CH 7
4	CH 8
5	CH 9
6	CH 10
7	CH 11
8	CH 12
9	
10	

P7108

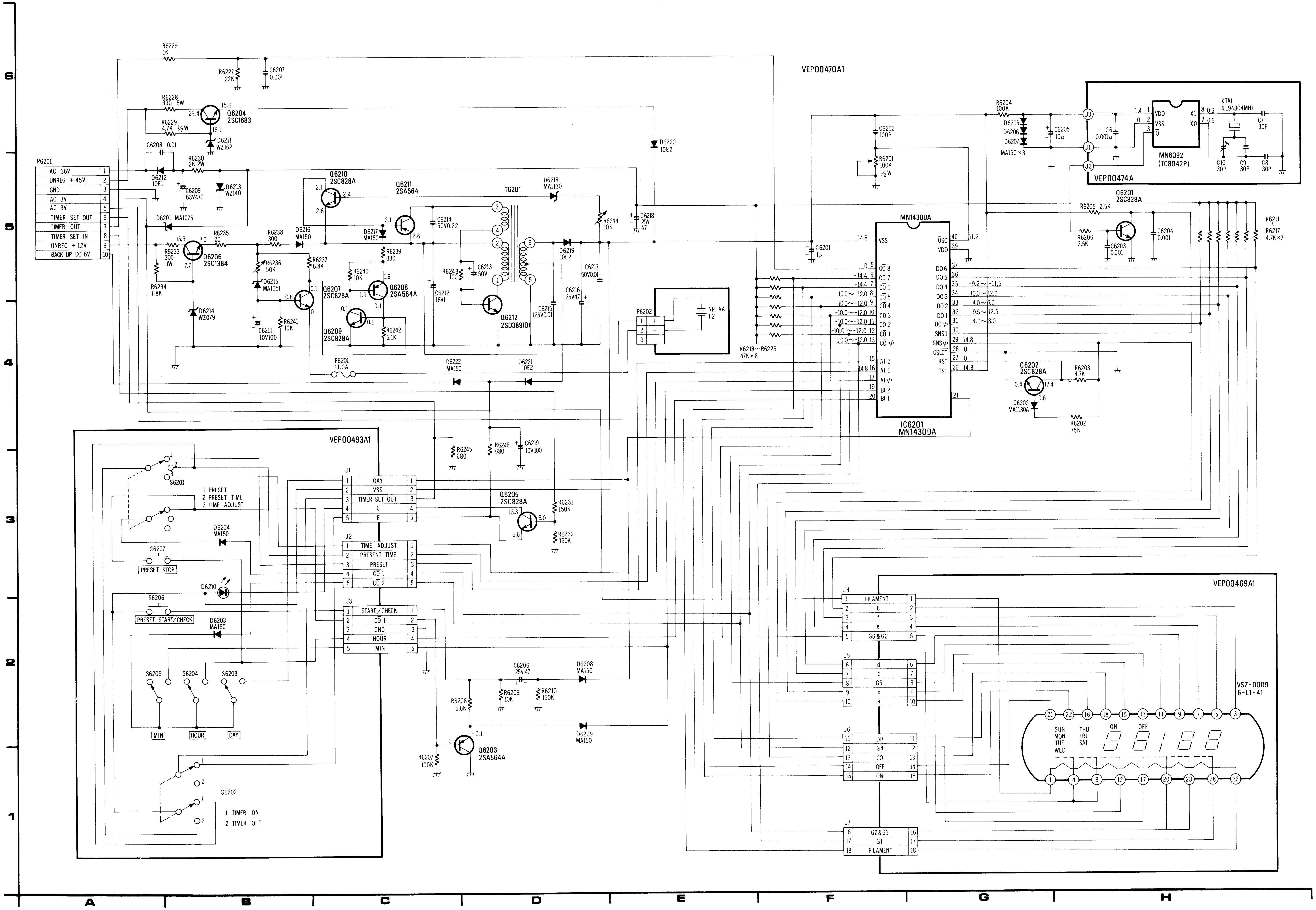
1	
2	
3	
4	+5V OUT
5	CH SELECT
6	GND
7	CH 1
8	CH 2
9	CH 3
10	CH 4

P7109

1	CH 5
2	CH 6
3	CH 7
4	CH 8
5	CH 9
6	CH 10
7	CH 11
8	CH 12
9	
10	

A B C D E F

TIMER SCHEMATIC DIAGRAM


VEP00470A1
VEP00474A
VEP00493A1
VEP00469A1
P6201
AC 36V
UNREG +45V
GND
AC 3V
AC 3V
TIMER SET OUT
TIMER OUT
TIMER SET IN
UNREG +12V
BACK UP DC 6V
R6226 1K
R6227 22K
C6207 0.001
R6228 390 5W
R6229 4.7K 1/2W
Q6204 2SC1683
D6211 WZ162
C6208 0.01
R6230 2K 2W
D6212 10E1
C6209 63V470
D6213 WZ140
D6201 MA1075
Q6206 2SC1384
R6233 300 1W
R6234 1.8K
R6235 20
D6214 WZ079
Q6210 2SC828A
Q6211 2SA564
T6201
D6218 MA1130
D6220 10E2
R6244 10K
C6218 25V47
R6238 300
D6216 MA150
D6217 MA150
C6214 50V0.22
R6239 330
R6236 50K
D6215 MA1051
R6237 6.8K
R6240 10K
Q6207 2SC828A
Q6208 2SA564A
Q6209 2SC828A
R6241 10K
R6242 5.1K
C6211 10V100
C6212 16V1
R6243 100
C6213 50V
Q6212 2SD389(O)
D6219 10E2
C6217 50V0.01
C6216 25V47
C6215 125V0.01
F6201 T1.0A
D6222 MA150
D6221 10E2
P6202
NR-AA F2
R6218~R6225 47K×8
R6204 100K
D6205
D6206
D6207
MA150×3
C6205 10μ
C6202 100P
R6201 100K 1/2W
C6201 1μ
C6 0.001μ
MN6092 (TC8042P)
VDD
VSS
X1
X0
XTAL 4.194304MHz
C7 30P
C10 30P
C9 30P
C8 30P
Q6201 2SC828A
R6205 2.5K
R6206 2.5K
C6203 0.001
C6204 0.001
R6211~R6217 4.7K×7
MN1430DA
IC6201 MN1430DA
VSS
VDD
OSC
CO 8
CO 7
CO 6
CO 5
CO 4
CO 3
CO 2
CO 1
CO φ
DO 6
DO 5
DO 4
DO 3
DO 2
DO 1
DO φ
SNS1
SNS φ
CSLCT
RST
TST
AI 2
AI 1
AI φ
BI 2
BI 1
Q6202 2SC828A
R6203 4.7K
D6202 MA1130A
R6202 75K
R6245 680
R6246 680
C6219 10V100
Q6205 2SC828A
R6231 150K
R6232 150K
S6201
1 PRESET
2 PRESENT TIME
3 TIME ADJUST
D6204 MA150
S6207
PRESET STOP
D6210
S6206
PRESET START/CHECK
D6203 MA150
S6205
S6204
S6203
MIN
HOUR
DAY
S6202
1 TIMER ON
2 TIMER OFF
J1
DAY
VSS
TIMER SET OUT
C
E
J2
TIME ADJUST
PRESENT TIME
PRESET
CO 1
CO 2
J3
START/CHECK
CO 1
GND
HOUR
MIN
C6206 25V47
D6208 MA150
R6209 10K
R6210 150K
R6208 5.6K
D6209 MA150
Q6203 2SA564A
R6207 100K
J4
FILAMENT
g
f
e
G6&G2
J5
d
c
G5
b
a
J6
DP
G4
COL
OFF
ON
J7
G2&G3
G1
FILAMENT
VSZ-0009 6-LT-41
SUN
MON
TUE
WED
THU
FRI
SAT
ON
OFF
A
B
C
D
E
F
G
H
1
2
3
4
5
6

TIMER CIRCUIT BOARD (VEP00470A1)

J1

1	DAY
2	VSS
3	TIMER SET OUT
4	C
5	E

J2

1	TIME ADJUST
2	PRESENT TIME
3	PRESENT
4	$\overline{CO}$1
5	$\overline{CO}$2

J3

1	START/CHECK
2	$\overline{CO}$1
3	GND
4	HOUR
5	MIN

J4

1	FILAMENT
2	g
3	f
4	e
5	G6 & G2

J5

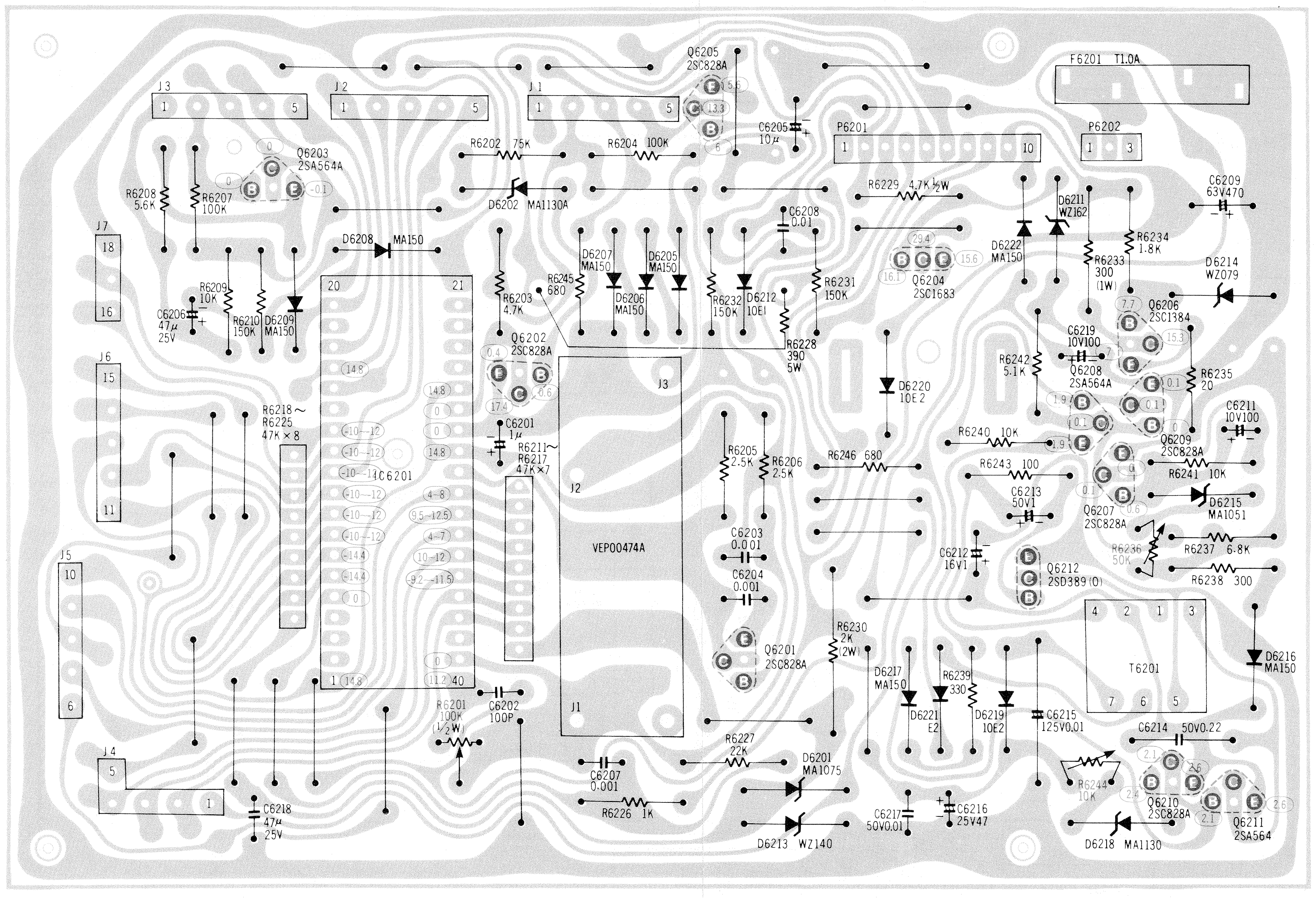
6	d
7	c
8	G5
9	b
10	a

J6

11	DP
12	G
13	COL
14	OFF
15	ON

J7

16	G2 & G3
17	G1
18	FILAMENT


F6201 T1.0A
J3
J2
J1
P6201
P6202
Q6205 2SC828A
Q6203 2SA564A
C6205 10μ
R6202 75K
R6204 100K
D6202 MA1130A
C6208 0.01
R6229 4.7K ½W
D6211 WZ162
C6209 63V470
R6208 5.6K
R6207 100K
D6208 MA150
J7
R6209 10K
R6210 150K
D6209 MA150
C6206 47μ 25V
D6207 MA150
D6205 MA150
D6206 MA150
R6245 680
R6203 4.7K
R6232 150K
D6212 10E1
R6231 150K
R6228 390 5W
Q6204 2SC1683
D6222 MA150
R6233 300 (1W)
R6234 1.8K
D6214 WZ079
Q6206 2SC1384
Q6202 2SC828A
C6219 10V100
Q6208 2SA564A
R6242 5.1K
R6235 20
C6211 10V100
D6220 10E2
J6
R6218～R6225 47K×8
IC6201
C6201 1μ
R6211～R6217 47K×7
VEP00474A
R6205 2.5K
R6206 2.5K
R6246 680
R6240 10K
R6243 100
Q6209 2SC828A
R6241 10K
C6213 50V1
Q6207 2SC828A
D6215 MA1051
C6203 0.001
C6204 0.001
C6212 16V1
Q6212 2SD389(O)
R6236 50K
R6237 6.8K
R6238 300
J5
T6201
Q6201 2SC828A
R6230 2K (2W)
D6217 MA150
R6239 330
D6221 E2
D6219 10E2
C6215 125V0.01
D6216 MA150
R6201 100K (½W)
C6202 100P
R6227 22K
C6214 50V0.22
J4
C6218 47μ 25V
C6207 0.001
R6226 1K
D6201 MA1075
D6213 WZ140
C6217 50V0.01
C6216 25V47
R6244 10K
Q6210 2SC828A
D6218 MA1130
Q6211 2SA564

P6201

1	AC 36V
2	UNREG +45V
3	GND
4	AC 3V
5	AC 3V
6	TIMER SET OUT
7	TIMER OUT
8	TIMER SET IN
9	UNREG +12V
10	

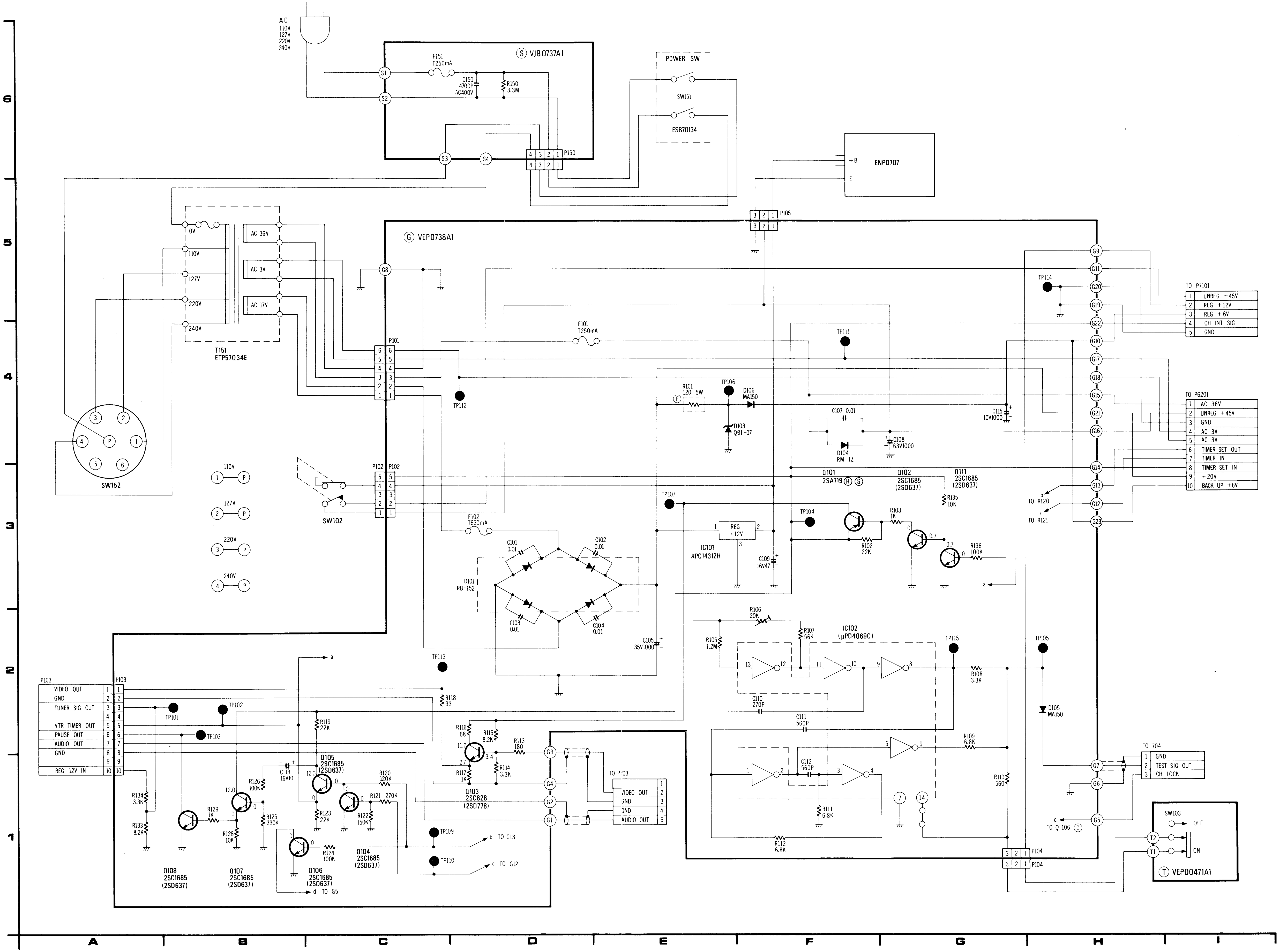
P6202

1	+
2	−
3	

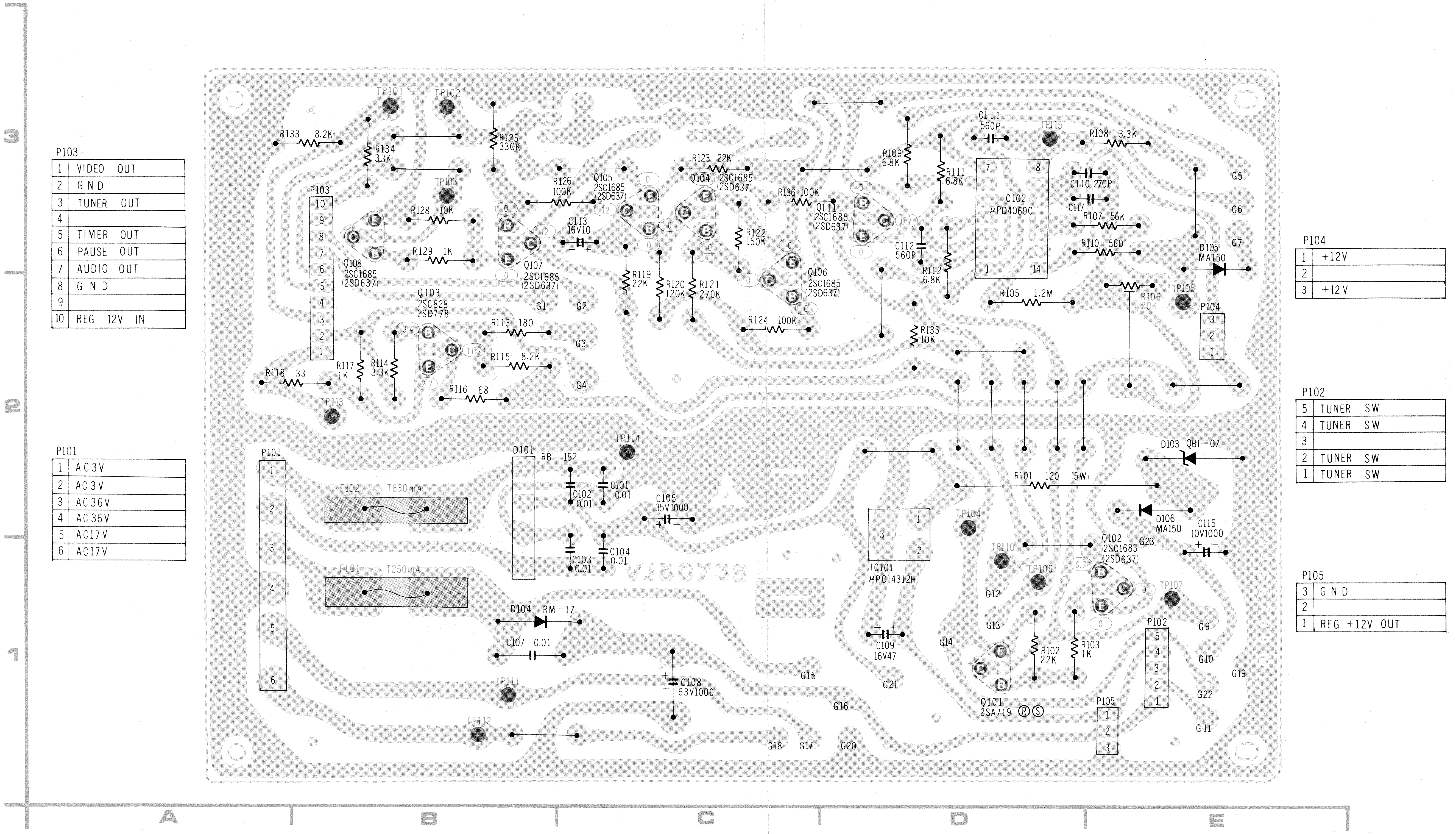
3
2
1

A B C D E F

POWER SUPPLY & INTERFACE SCHEMATIC DIAGRAM


AC
110V
127V
220V
240V
Ⓢ VJB0737A1
F151
T250mA
C150
4700P
AC400V
R150
3.3M
S1
S2
S3
S4
P150
POWER SW
SW151
ESB70134
ENP0707
+B
E
P105
Ⓖ VEP0738A1
G8
0V
110V
127V
220V
240V
AC 36V
AC 3V
AC 17V
T151
ETP57Q34E
P101
TP112
F101
T250mA
TP111
SW152
110V
127V
220V
240V
P102
SW102
F102
T630mA
C101
0.01
C102
0.01
C103
0.01
C104
0.01
D101
RB-152
C105
35V1000
R101
120 5W
TP106
D106
MA150
D103
QB1-07
C107 0.01
D104
RM-1Z
C108
63V1000
C115
10V1000
TP107
REG
+12V
IC101
μPC14312H
C109
16V47
TP104
Q101
2SA719 Ⓡ Ⓢ
Q102
2SC1685
(2SD637)
Q111
2SC1685
(2SD637)
R103
1K
R102
22K
R135
10K
R136
100K
TP114
G9
G11
G20
G19
G22
G10
G17
G18
G15
G21
G16
G14
G13
G12
G23
G7
G6
G5
TO P7101
1 UNREG +45V
2 REG +12V
3 REG +6V
4 CH INT SIG
5 GND
TO P6201
1 AC 36V
2 UNREG +45V
3 GND
4 AC 3V
5 AC 3V
6 TIMER SET OUT
7 TIMER IN
8 TIMER SET IN
9 +20V
10 BACK UP +6V
TO R120
TO R121
P103
VIDEO OUT
GND
TUNER SIG OUT
VTR TIMER OUT
PAUSE OUT
AUDIO OUT
GND
REG 12V IN
TP101
TP102
TP103
TP113
R118
33
R119
22K
R116
68
R115
8.2K
R113
180
R114
3.3K
R117
1K
Q103
2SC828
(2SD778)
Q105
2SC1685
(2SD637)
C113
16V10
R126
100K
R120
120K
R121 270K
R122
150K
R123
22K
R125
330K
R129
1K
R128
10K
R134
3.3K
R133
8.2K
R124
100K
Q104
2SC1685
(2SD637)
Q106
2SC1685
(2SD637)
Q107
2SC1685
(2SD637)
Q108
2SC1685
(2SD637)
TP109
TP110
TO G13
TO G12
TO G5
G3
G4
G2
G1
TO P703
VIDEO OUT
GND
GND
AUDIO OUT
R106
20K
R105
1.2M
R107
56K
IC102
(μPD4069C)
C110
270P
C111
560P
C112
560P
R111
6.8K
R112
6.8K
R109
6.8K
R110
560
TP115
TP105
R108
3.3K
D105
MA150
P104
TO 704
1 GND
2 TEST SIG OUT
3 CH LOCK
TO Q 106 Ⓒ
SW103
OFF
ON
T2
T1
Ⓣ VEP00471A1
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I

POWER SUPPLY & INTERFACE CIRCUIT BOARD (VEP0738A1)



3
2
1
A
B
C
D
E
TP101
TP102
TP103
TP104
TP105
TP107
TP109
TP110
TP111
TP112
TP113
TP114
TP115
R133 8.2K
R134 3.3K
R125 330K
R126 100K
R128 10K
R129 1K
R113 180
R115 8.2K
R116 68
R117 1K
R114 3.3K
R118 33
R119 22K
R120 120K
R121 270K
R122 150K
R123 22K
R124 100K
R136 100K
R109 6.8K
R111 6.8K
R112 6.8K
R135 10K
R105 1.2M
R106 20K
R107 56K
R108 3.3K
R110 560
R101 120 (5W)
R102 22K
R103 1K
Q108 2SC1685 (2SD637)
Q103 2SC828 2SD778
Q107 2SC1685 (2SD637)
Q105 2SC1685 (2SD637)
Q104 2SC1685 (2SD637)
Q111 2SC1685 (2SD637)
Q106 2SC1685 (2SD637)
Q102 2SC1685 (2SD637)
Q101 2SA719 Ⓡ Ⓢ
C113 16V10
C112 560P
C111 560P
C110 270P
C117
C101 0.01
C102 0.01
C103 0.01
C104 0.01
C105 35V1000
C107 0.01
C108 63V1000
C109 16V47
C115 10V1000
IC102 μPD4069C
IC101 μPC14312H
D101 RB—152
D103 QB1—07
D104 RM—1Z
D105 MA150
D106 MA150
F102 T630mA
F101 T250mA
P101
P102
P103
P104
P105
G1
G2
G3
G4
G5
G6
G7
G9
G10
G11
G12
G13
G14
G15
G16
G17
G18
G19
G20
G21
G22
G23
VJB0738

P103

1	VIDEO OUT
2	GND
3	TUNER OUT
4	
5	TIMER OUT
6	PAUSE OUT
7	AUDIO OUT
8	GND
9	
10	REG 12V IN

P101

1	AC3V
2	AC3V
3	AC36V
4	AC36V
5	AC17V
6	AC17V

P104

1	+12V
2	
3	+12V

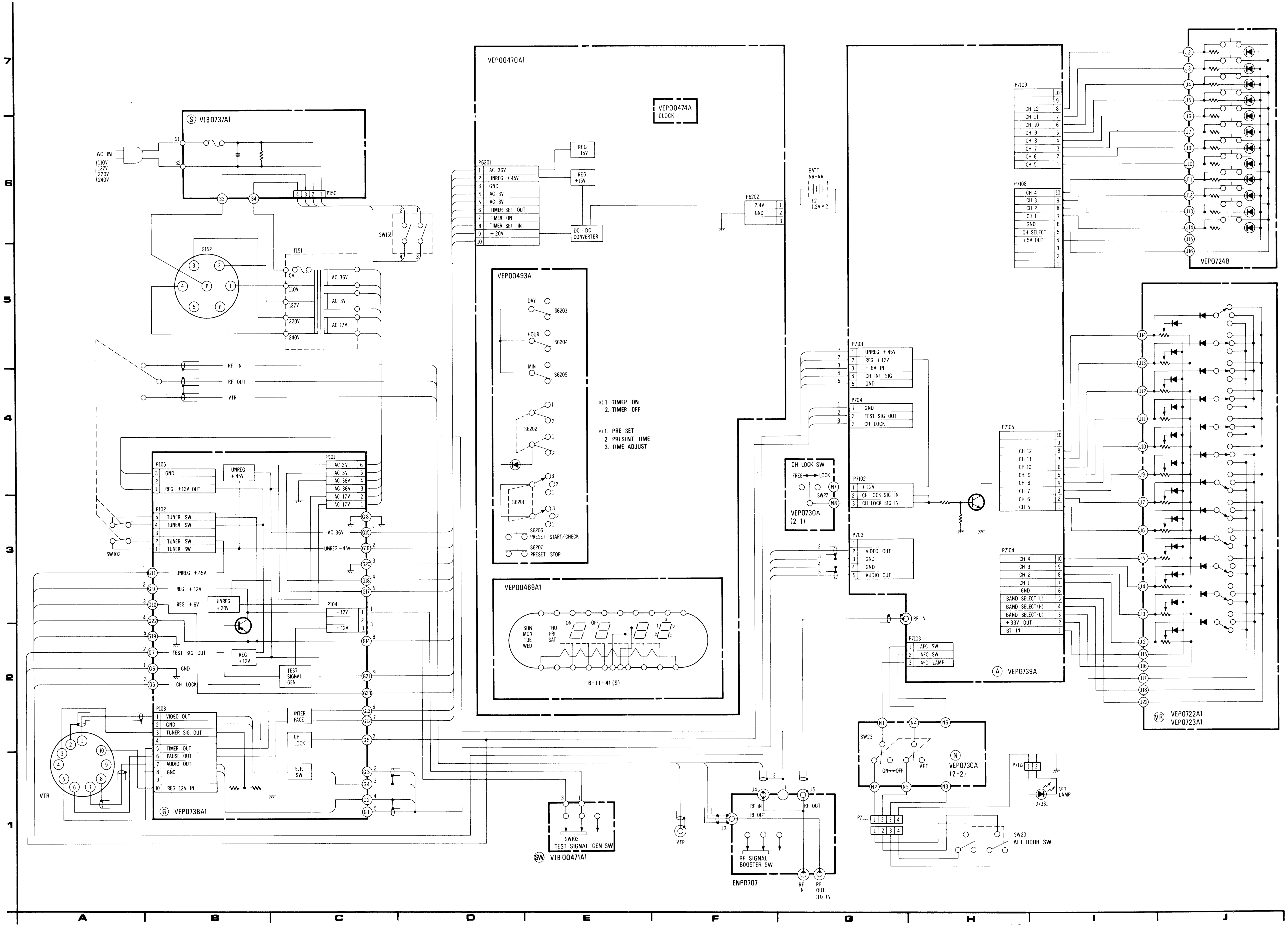
P102

5	TUNER SW
4	TUNER SW
3	
2	TUNER SW
1	TUNER SW

P105

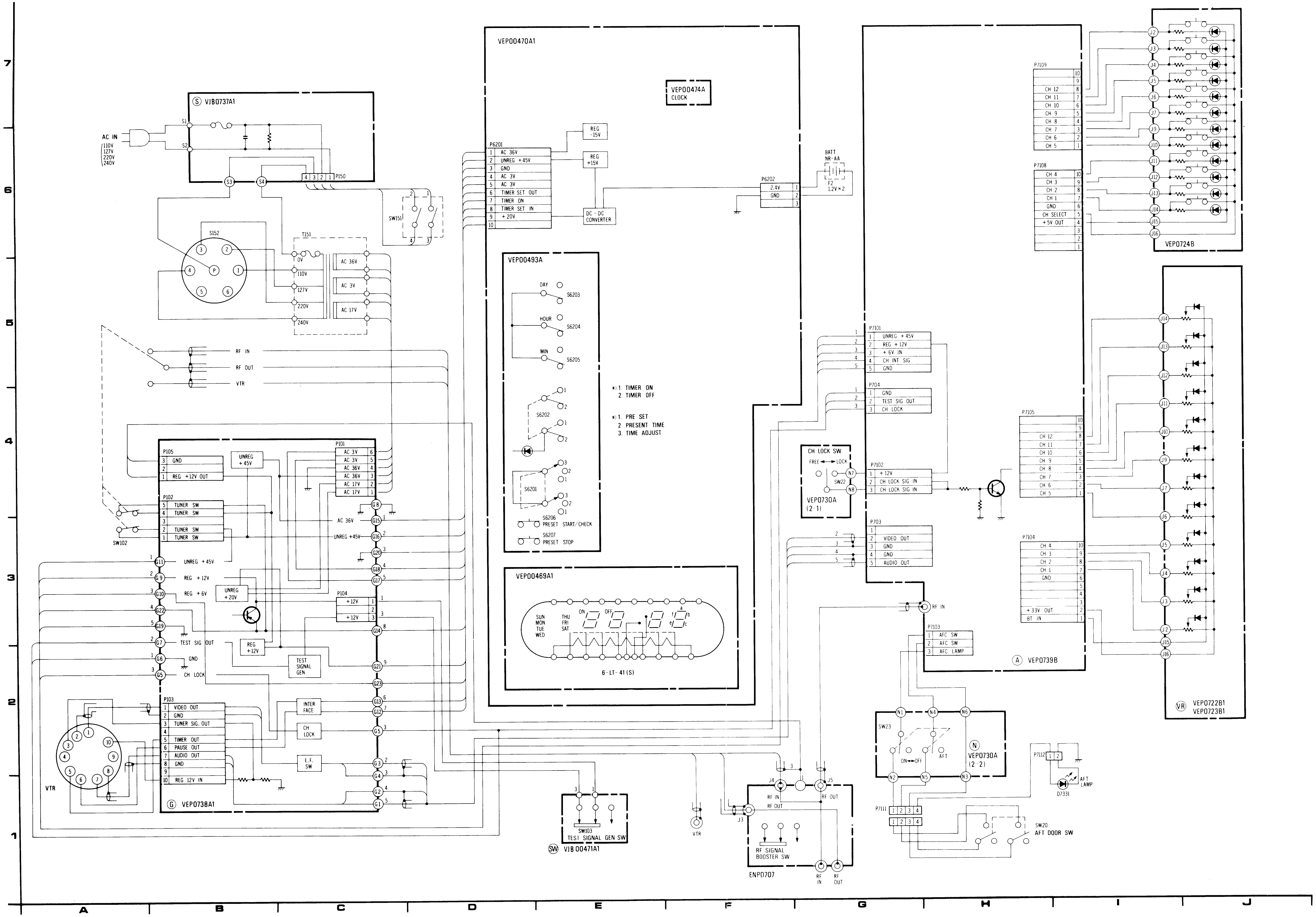
3	GND
2	
1	REG +12V OUT

NV-V800E INTERCONNECTION SCHEMATIC DIAGRAM

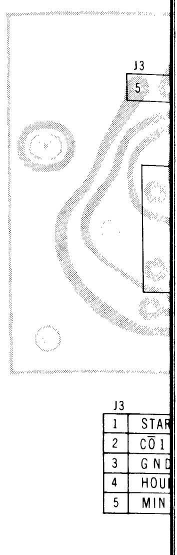


Ⓢ VJB0737A1
AC IN
110V
127V
220V
240V
S1
S2
S3
S4
P150
SW151
S152
T151
0V
110V
127V
220V
240V
AC 36V
AC 3V
AC 17V
RF IN
RF OUT
VTR
SW102
P105
GND
REG +12V OUT
P102
TUNER SW
P101
AC 3V
AC 36V
AC 17V
UNREG +45V
UNREG +20V
REG +12V
TEST SIGNAL GEN
P104
+12V
UNREG +45V
REG +12V
REG +6V
TEST SIG OUT
GND
CH LOCK
P103
VIDEO OUT
TUNER SIG. OUT
TIMER OUT
PAUSE OUT
AUDIO OUT
REG 12V IN
INTER FACE
CH LOCK
E.F. SW
Ⓖ VEP0738A1
VEP00470A1
VEP00474A CLOCK
REG -15V
REG +15V
P6201
AC 36V
UNREG +45V
GND
AC 3V
TIMER SET OUT
TIMER ON
TIMER SET IN
+20V
DC-DC CONVERTER
P6202
2.4V
GND
BATT NR-AA
F2 1.2V×2
VEP00493A
DAY
HOUR
MIN
S6203
S6204
S6205
S6202
S6201
S6206 PRESET START/CHECK
S6207 PRESET STOP
*1 1. TIMER ON 2. TIMER OFF
*1 1. PRE SET 2. PRESENT TIME 3. TIME ADJUST
VEP00469A1
SUN MON TUE WED
THU FRI SAT
ON
OFF
6-LT-41(S)
SW103 TEST SIGNAL GEN SW
Ⓢⓦ VJB00471A1
VTR
J3
J4
J5
RF IN
RF OUT
RF SIGNAL BOOSTER SW
ENPD707
RF IN
RF OUT (TO TV)
CH LOCK SW
FREE ←→ LOCK
SW22
VEP0730A (2-1)
P7101
UNREG +45V
REG +12V
+6V IN
CH INT SIG
GND
P704
GND
TEST SIG OUT
CH LOCK
P7102
+12V
CH LOCK SIG IN
P703
VIDEO OUT
GND
AUDIO OUT
RF IN
P7103
AFC SW
AFC LAMP
Ⓐ VEP0739A
P7109
CH 12
CH 11
CH 10
CH 9
CH 8
CH 7
CH 6
CH 5
P7108
CH 4
CH 3
CH 2
CH 1
GND
CH SELECT
+5V OUT
P7105
P7104
BAND SELECT (L)
BAND SELECT (H)
BAND SELECT (U)
+33V OUT
BT IN
VEP0724B
Ⓥⓡ VEP0722A1 VEP0723A1
SW23
ON↔OFF
AFT
Ⓝ VEP0730A (2-2)
P7112
AFT LAMP
D7331
P7111
SW20 AFT DOOR SW
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7

NV-V800B INTERCONNECTION SCHEMATIC DIAGRAM

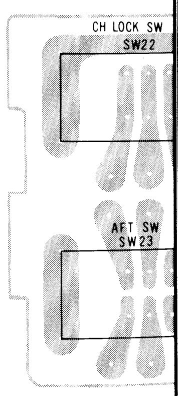


VEP00470A1
VEP00474A CLOCK
Ⓢ VJB0737A1
AC IN
110V
127V
220V
240V
S1
S2
S3
S4
P150
SW151
S152
T151
0V
110V
127V
220V
240V
AC 36V
AC 3V
AC 17V
RF IN
RF OUT
VTR
SW102
P6201
AC 36V
UNREG +45V
GND
AC 3V
AC 3V
TIMER SET OUT
TIMER ON
TIMER SET IN
+20V
REG -15V
REG +15V
DC-DC CONVERTER
P6202
2.4V
GND
BATT NR-AA
F2 1.2V×2
VEP00493A
DAY S6203
HOUR S6204
MIN S6205
S6202
S6201
S6206 PRESET START/CHECK
S6207 PRESET STOP
*1 1. TIMER ON 2. TIMER OFF
*1 1. PRE SET 2. PRESENT TIME 3. TIME ADJUST
VEP00469A1
SUN MON TUE WED
THU FRI SAT
ON OFF
6-LT-41(S)
P105
GND
REG +12V OUT
P102
TUNER SW
P101
UNREG +45V
UNREG +45V
REG +12V
REG +6V
UNREG +20V
P104
+12V
TEST SIG OUT
GND
CH LOCK
REG +12V
TEST SIGNAL GEN
P103
VIDEO OUT
GND
TUNER SIG. OUT
TIMER OUT
PAUSE OUT
AUDIO OUT
REG 12V IN
INTER FACE
CH LOCK
E.F. SW
VTR
Ⓖ VEP0738A1
SW103 TEST SIGNAL GEN SW
Ⓦ VJB00471A1
VTR
J3
J4
J5
RF IN
RF OUT
RF SIGNAL BOOSTER SW
ENPD707
RF IN
RF OUT
P7101
UNREG +45V
REG +12V
+6V IN
CH INT SIG
GND
P704
GND
TEST SIG OUT
CH LOCK
CH LOCK SW
FREE LOCK
SW22
VEP0730A (2-1)
P7102
+12V
CH LOCK SIG IN
CH LOCK SIG IN
P703
VIDEO OUT
GND
GND
AUDIO OUT
RF IN
P7103
AFC SW
AFC SW
AFC LAMP
Ⓐ VEP0739B
P7109
CH 12
CH 11
CH 10
CH 9
CH 8
CH 7
CH 6
CH 5
P7108
CH 4
CH 3
CH 2
CH 1
GND
CH SELECT
+5V OUT
VEP0724B
P7105
P7104
+3.3V OUT
BT IN
Ⓥ VEP0722B1 VEP0723B1
SW23
ON↔OFF
AFT
Ⓝ VEP0730A (2-2)
P7112
AFT LAMP
D7331
P7111
SW20 AFT DOOR SW
A B C D E F G H I J
1 2 3 4 5 6 7



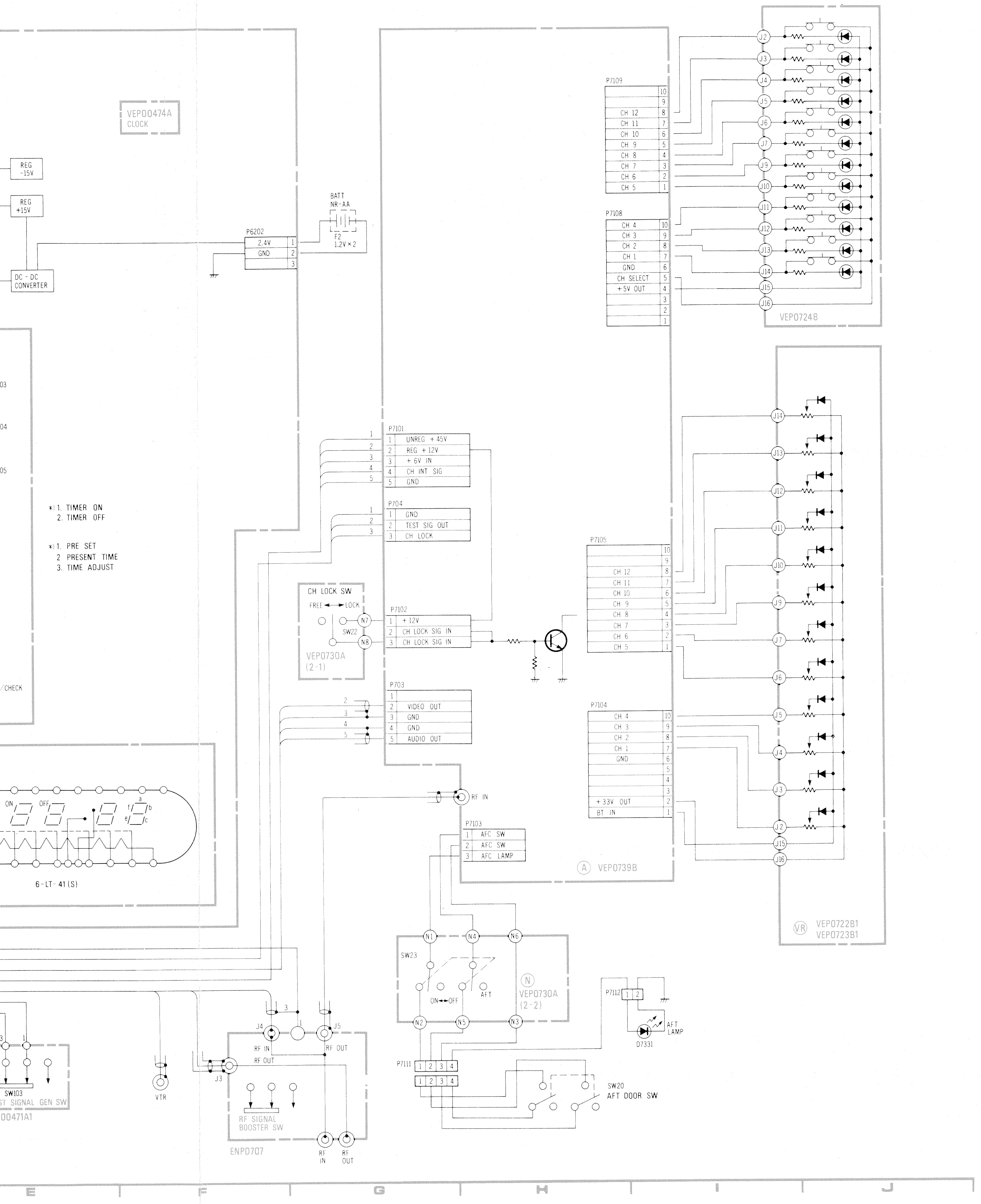
J3
J3
STAR
CO1
GND
HOU
MIN

AFT & CH SW BOARD

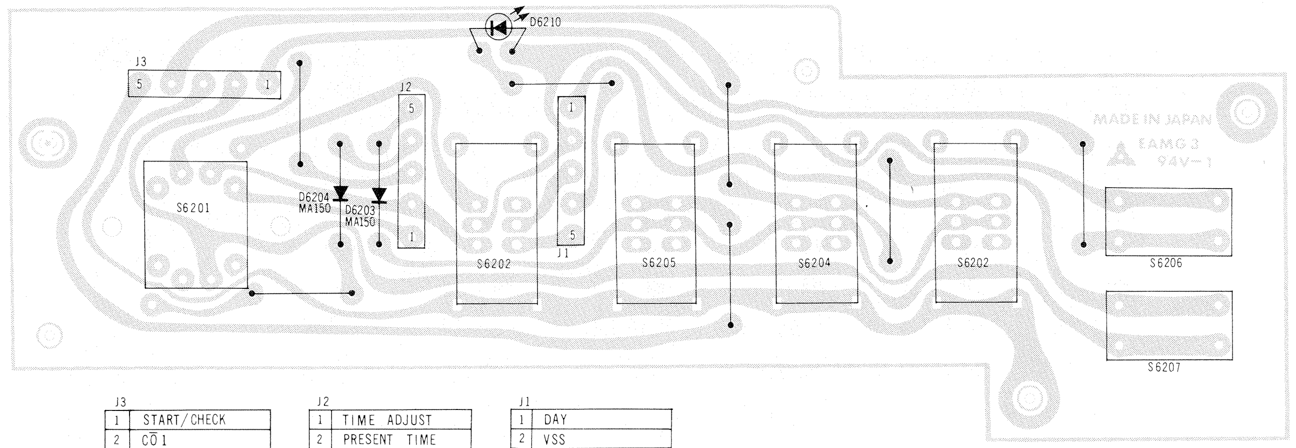


CH LOCK SW
SW22
AFT SW
SW23

TIC DIAGRAM


VEP00474A
CLOCK
REG -15V
REG +15V
DC-DC CONVERTER
P6202
2.4V
GND
BATT NR-AA
F2 1.2V×2
*1 1. TIMER ON
2. TIMER OFF
*1 1. PRE SET
2. PRESENT TIME
3. TIME ADJUST
6-LT-41(S)
P7109
CH 12
CH 11
CH 10
CH 9
CH 8
CH 7
CH 6
CH 5
P7108
CH 4
CH 3
CH 2
CH 1
GND
CH SELECT
+5V OUT
VEP0724B
P7101
UNREG +45V
REG +12V
+6V IN
CH INT SIG
GND
P704
GND
TEST SIG OUT
CH LOCK
CH LOCK SW
FREE
LOCK
SW22
VEP0730A (2-1)
P7102
+12V
CH LOCK SIG IN
CH LOCK SIG IN
P703
VIDEO OUT
GND
GND
AUDIO OUT
P7105
P7104
+3.3V OUT
BT IN
RF IN
P7103
AFC SW
AFC SW
AFC LAMP
Ⓐ VEP0739B
ⓋⓇ VEP0722B1
VEP0723B1
SW23
ON OFF
AFT
Ⓝ VEP0730A (2-2)
P7112
AFT LAMP
D7331
P7111
SW20
AFT DOOR SW
RF IN
RF OUT
RF SIGNAL BOOSTER SW
ENP0707
RF IN
RF OUT
VTR
SW103
ST SIGNAL GEN SW
00471A1
E
F
G
H
I
J

TIMER OPERATION CIRCUIT BOARD (VEP0493A1)


D6210
J3
J2
J1
S6201
D6204 MA150
D6203 MA150
S6202
S6205
S6204
S6202
S6206
S6207
MADE IN JAPAN
FAMG3
94V-1

J3

1	START/CHECK
2	C$\overline{O}$1
3	GND
4	HOUR
5	MIN

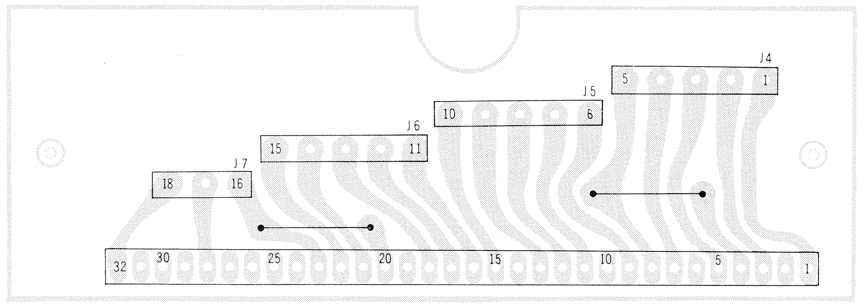
J2

1	TIME ADJUST
2	PRESENT TIME
3	PRESENT
4	C$\overline{O}$1
5	C$\overline{O}$2

J1

1	DAY
2	VSS
3	TIMER SET OUT
4	C
5	E

TIMER DISPLAY CIRCUIT BOARD (VEP00469A1)


J4
J5
J6
J7
32
30
25
20
15
10
5
1

J7

16	G2 & G3
17	G1
18	FILAMENT

J6

11	Dp
12	G4
13	COL
14	OFF
15	ON

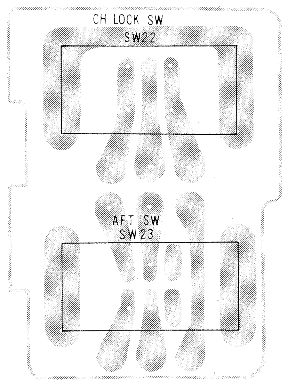
J5

6	d
7	c
8	G5
9	b
10	a

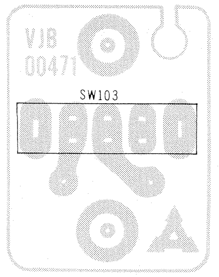
J4

1	FILAMENT
2	g
3	f
4	e
5	G6 & G2

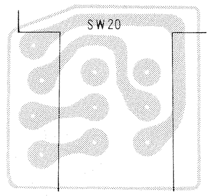
AFT & CH SW CIRCUIT BOARD (VEP0730A)


CH LOCK SW
SW22
AFT SW
SW23

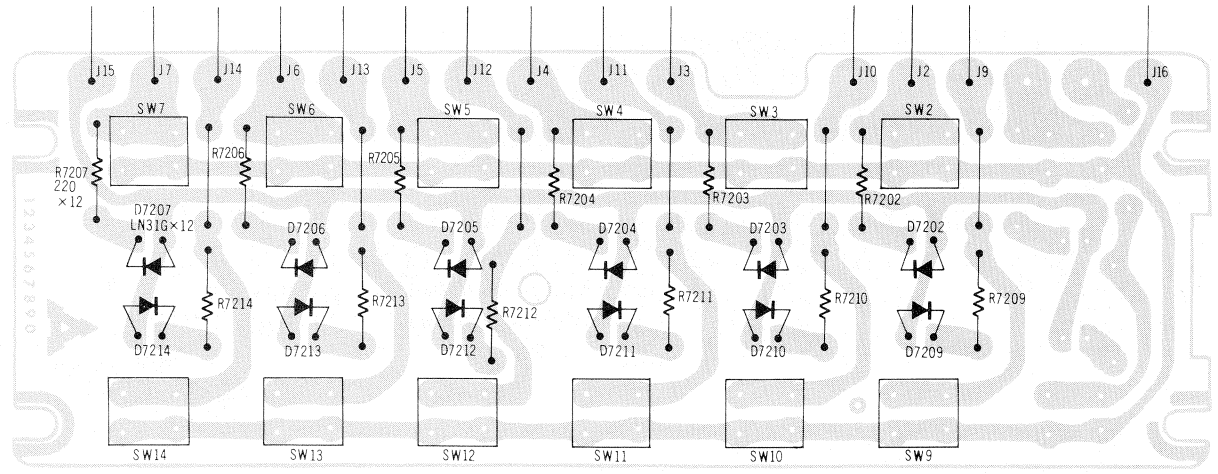
TEST SIGNAL SW CIRCUIT BOARD (VJB00471A1)


VJB 00471
SW103

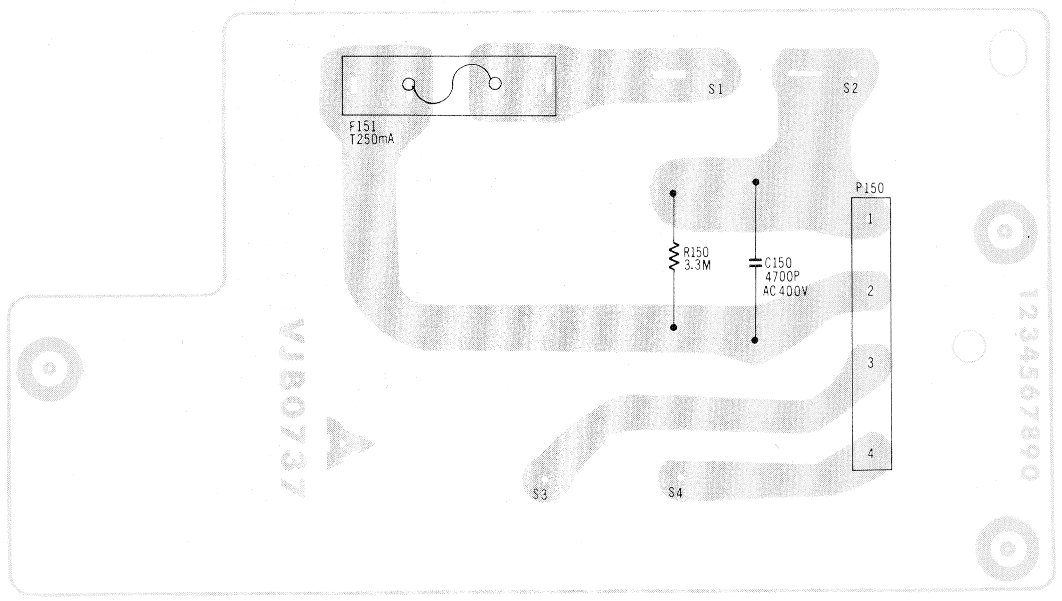
AFT DOOR SW CIRCUIT BOARD



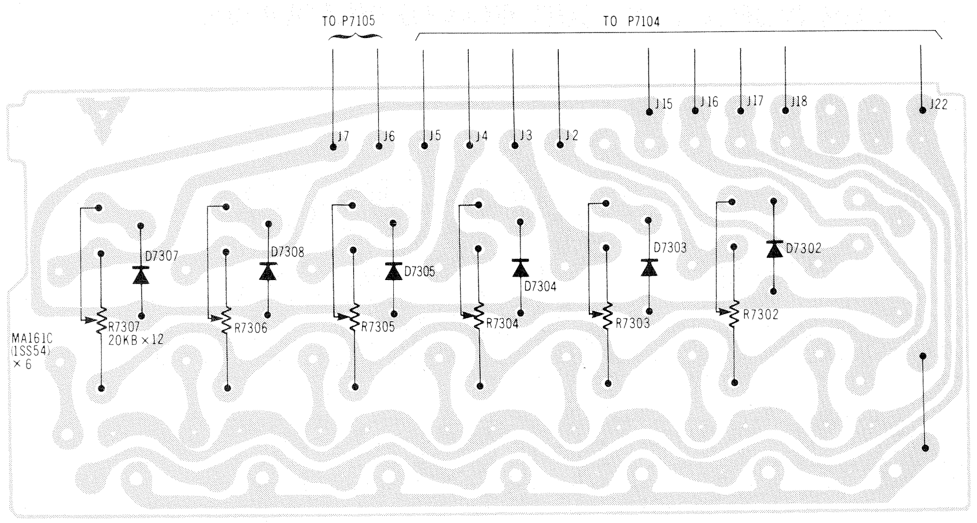
CHANNEL INDICATOR CIRCUIT BOARD (VEP0724B)


J15 J7 J14 J6 J13 J5 J12 J4 J11 J3 J10 J2 J9 J16
SW7 SW6 SW5 SW4 SW3 SW2
R7207 220 ×12
R7206 R7205 R7204 R7203 R7202
D7207 LN31G×12
D7206 D7205 D7204 D7203 D7202
R7214 R7213 R7212 R7211 R7210 R7209
D7214 D7213 D7212 D7211 D7210 D7209
SW14 SW13 SW12 SW11 SW10 SW9
1234567890

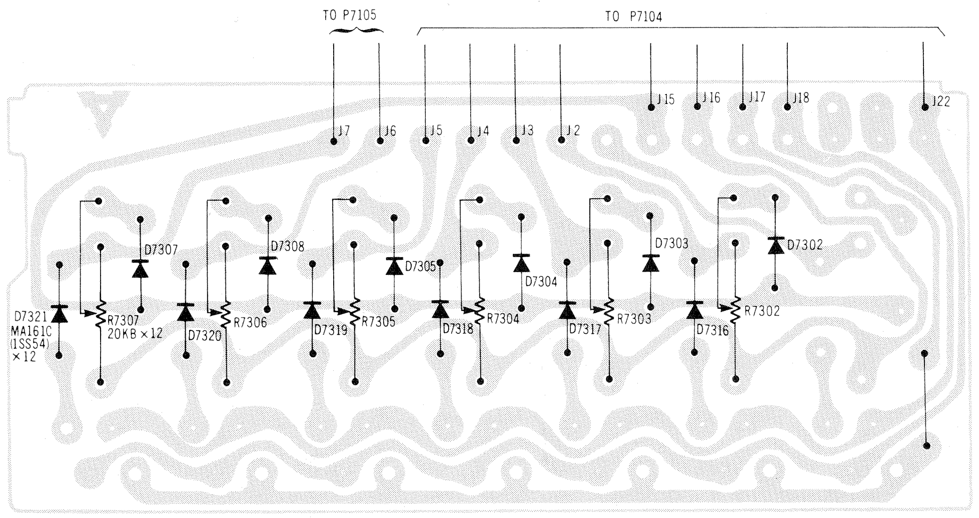
LINE FILTER CIRCUIT BOARD (VJB0737A1)


F151 T250mA
S1 S2
R150 3.3M
C150 4700P AC400V
P150
1 2 3 4
S3 S4
VJB0737
1234567890

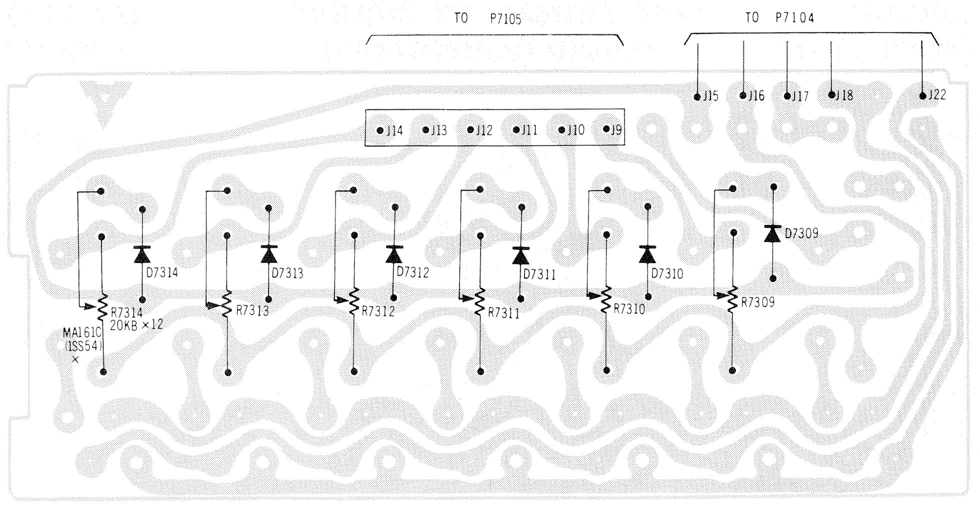
NV-V800E FINE TUNING CIRCUIT BOARD (1) (VEP0722A1)


TO P7105
TO P7104
J15 J16 J17 J18 J22
J7 J6 J5 J4 J3 J2
D7307 D7308 D7305 D7304 D7303 D7302
R7307 20KB ×12
R7306 R7305 R7304 R7303 R7302
MA161C (1SS54) ×6

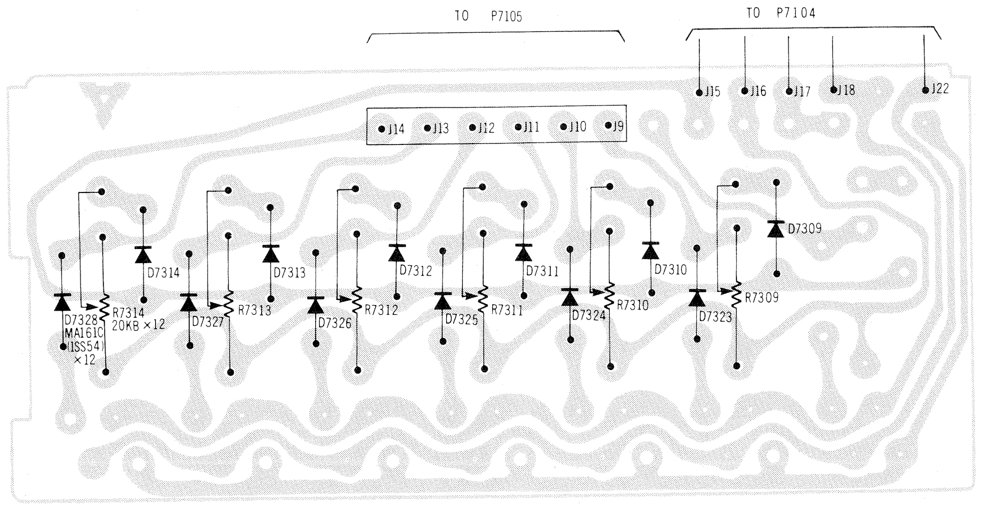
NV-V800B FINE TUNING CIRCUIT BOARD (1) (VEP0722B1)


TO P7105
TO P7104
J15 J16 J17 J18 J22
J7 J6 J5 J4 J3 J2
D7307 D7308 D7305 D7304 D7303 D7302
D7321 MA161C (1SS54) ×12
R7307 20KB ×12
D7320 R7306 D7319 R7305 D7318 R7304 D7317 R7303 D7316 R7302

NV-V800E FINE TUNING CIRCUIT BOARD (2) (VEP0723A1)


TO P7105
TO P7104
J15 J16 J17 J18 J22
J14 J13 J12 J11 J10 J9
D7314 D7313 D7312 D7311 D7310 D7309
R7314 20KB ×12
R7313 R7312 R7311 R7310 R7309
MA161C (1SS54) ×

NV-V800B FINE TUNING CIRCUIT BOARD (2) (VEP0723B1)


TO P7105
TO P7104
J15 J16 J17 J18 J22
J14 J13 J12 J11 J10 J9
D7314 D7313 D7312 D7311 D7310 D7309
D7328 MA161C (1SS54) ×12
R7314 20KB ×12
D7327 R7313 D7326 R7312 D7325 R7311 D7324 R7310 D7323 R7309

EXPLO

Cushi

Polyethylene Bag VPF0130

5

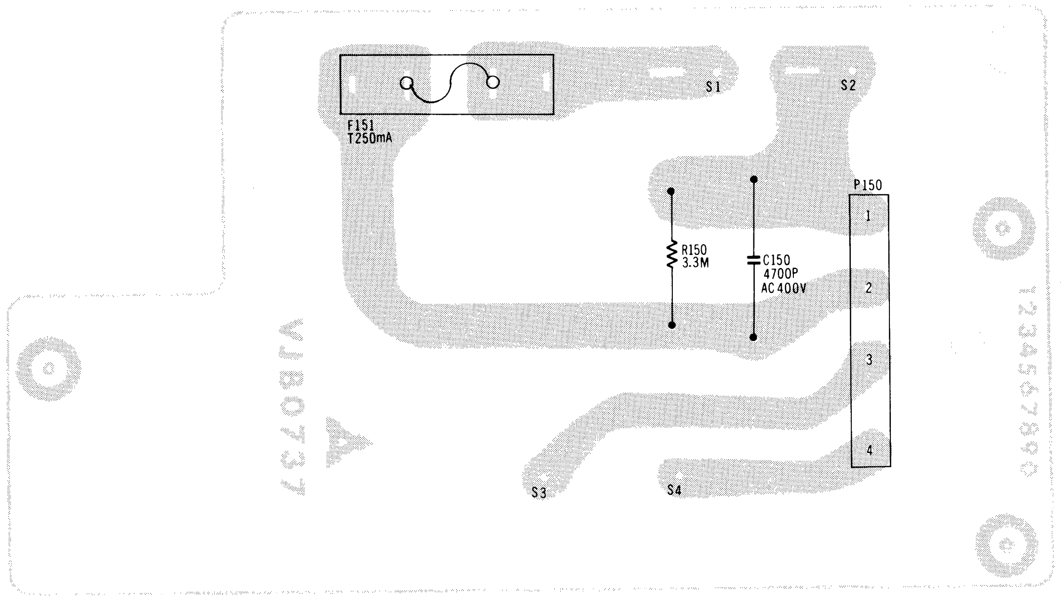
4

3

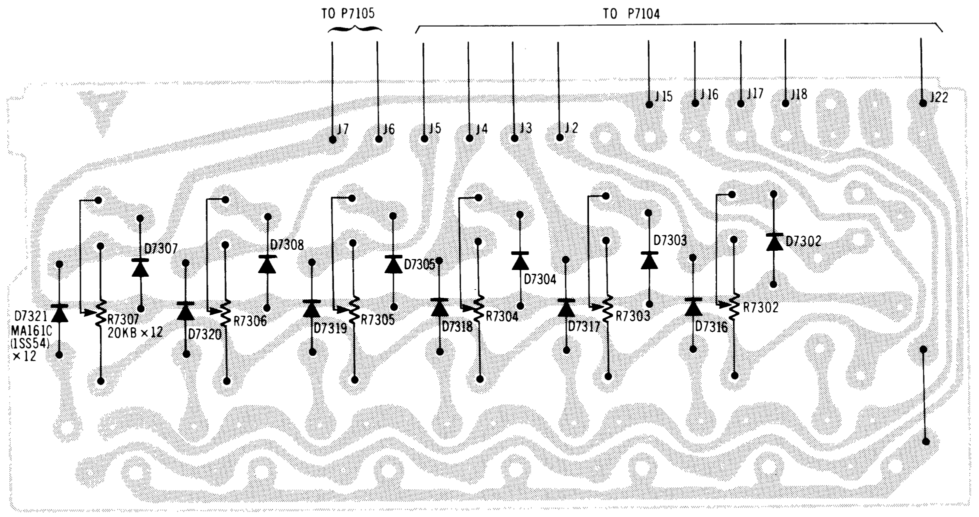
2

1

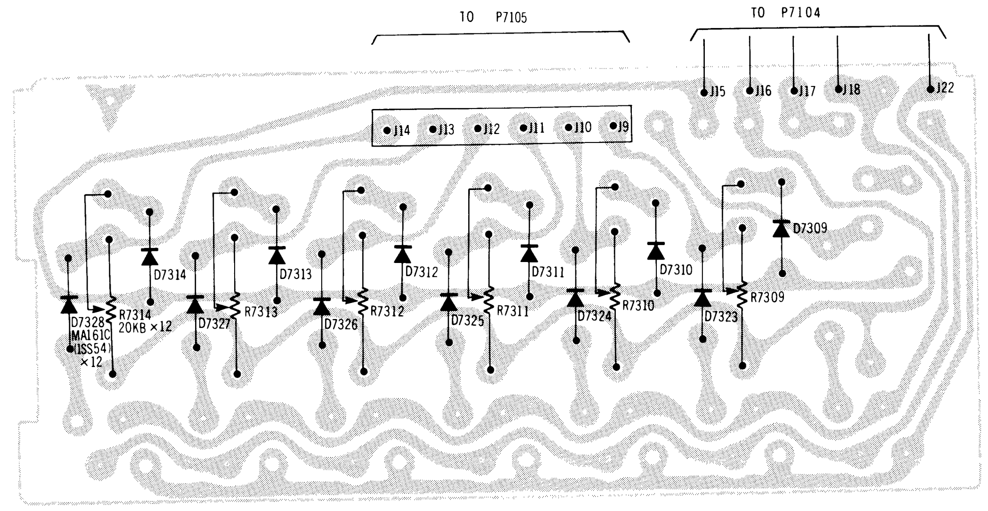
LINE FILTER CIRCUIT BOARD (VJB0737A1)


F151
T250mA
S1
S2
P150
1
2
3
4
R150
3.3M
C150
4700P
AC400V
S3
S4
VJB0737
1234567890

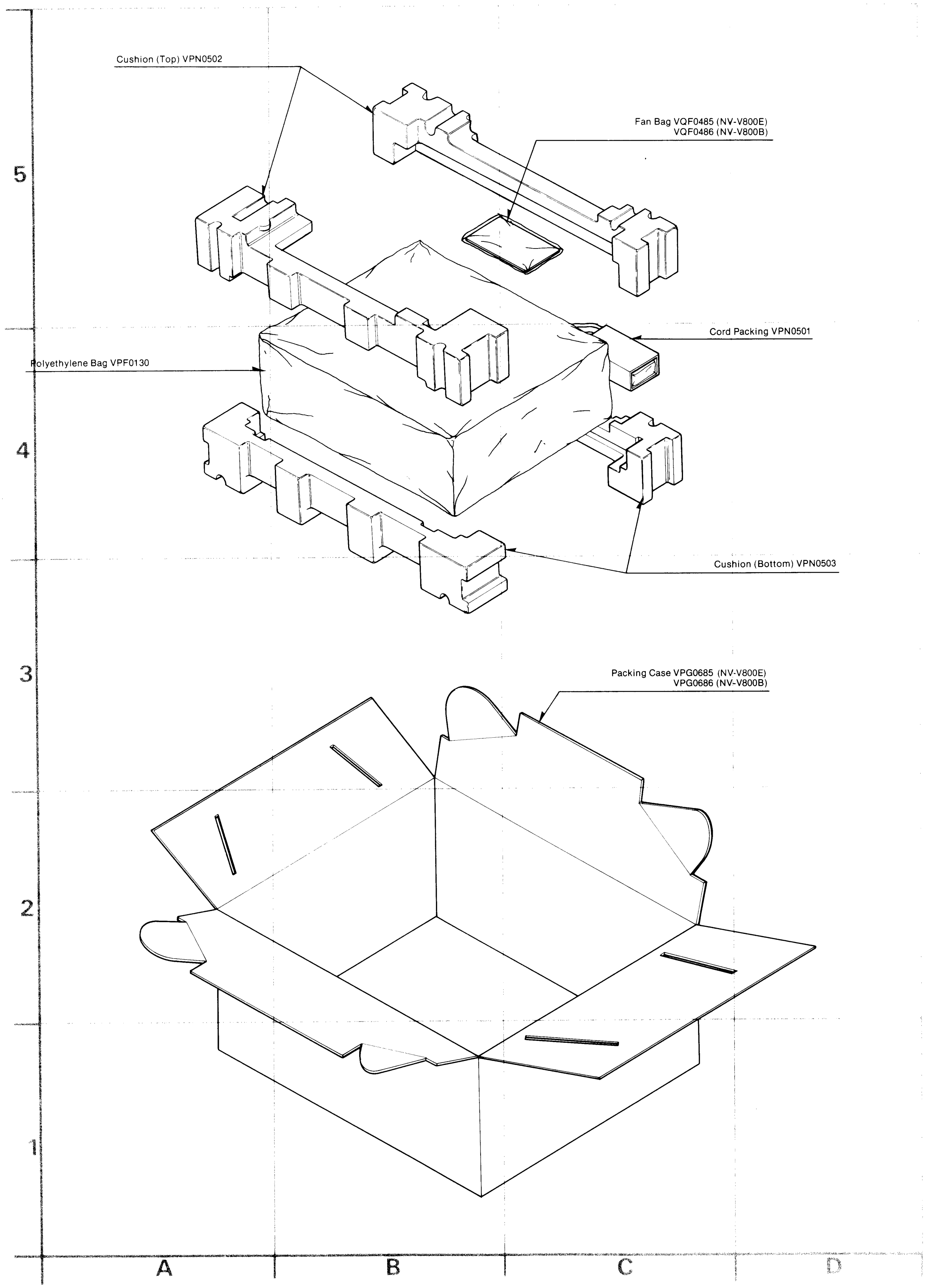
NV-V800B FINE TUNING CIRCUIT BOARD (1) (VEP0722B1)


TO P7105
TO P7104
J7
J6
J5
J4
J3
J2
J15
J16
J17
J18
J22
D7307
D7308
D7305
D7304
D7303
D7302
D7321
MA161C
(1SS54)
×12
R7307
20KB ×12
D7320
R7306
D7319
R7305
D7318
R7304
D7317
R7303
D7316
R7302

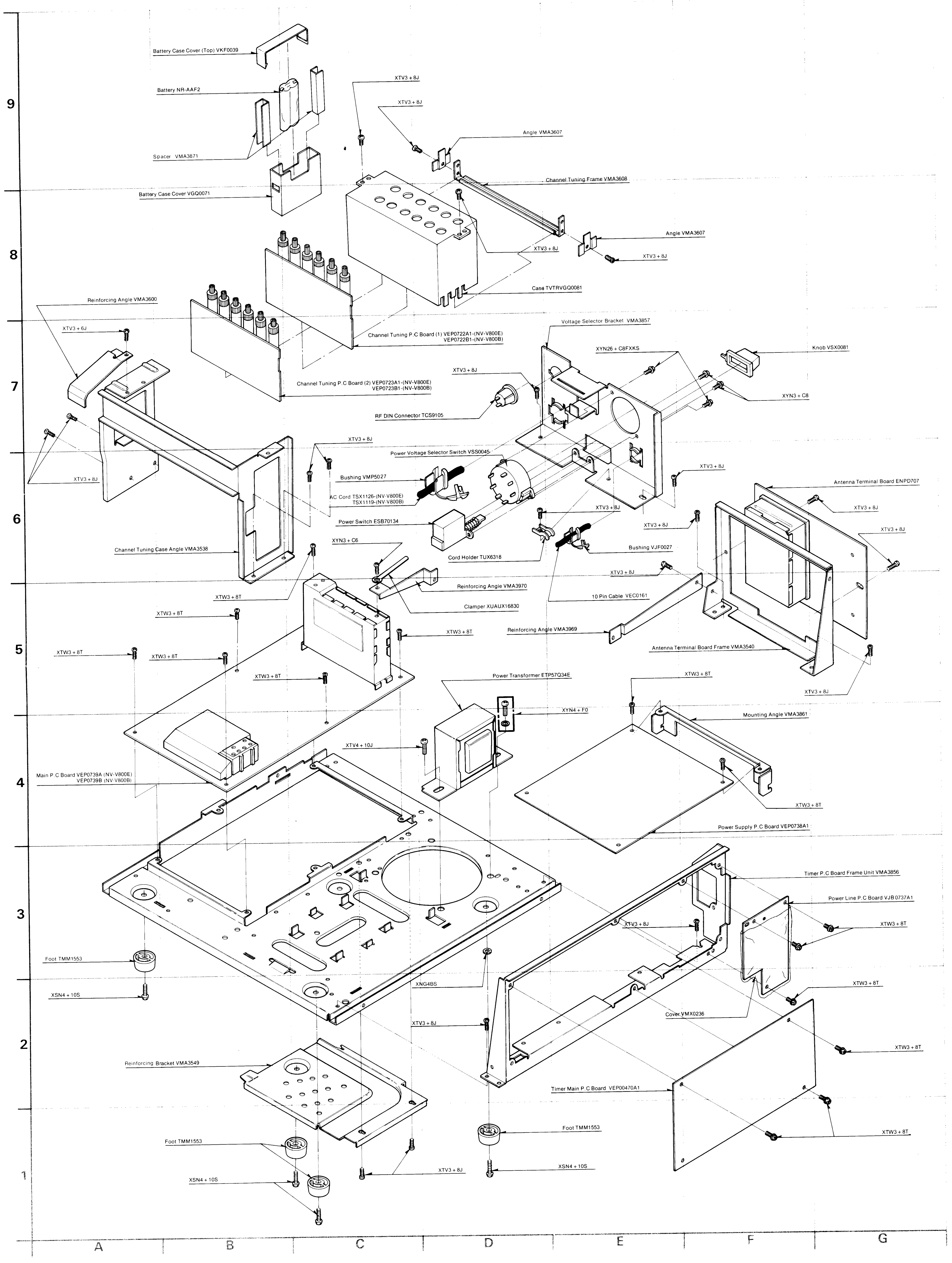
NV-V800B FINE TUNING CIRCUIT BOARD (2) (VEP0723B1)


TO P7105
TO P7104
J15
J16
J17
J18
J22
J14
J13
J12
J11
J10
J9
D7314
D7313
D7312
D7311
D7310
D7309
D7328
MA161C
(1SS54)
×12
R7314
20KB ×12
D7327
R7313
D7326
R7312
D7325
R7311
D7324
R7310
D7323
R7309

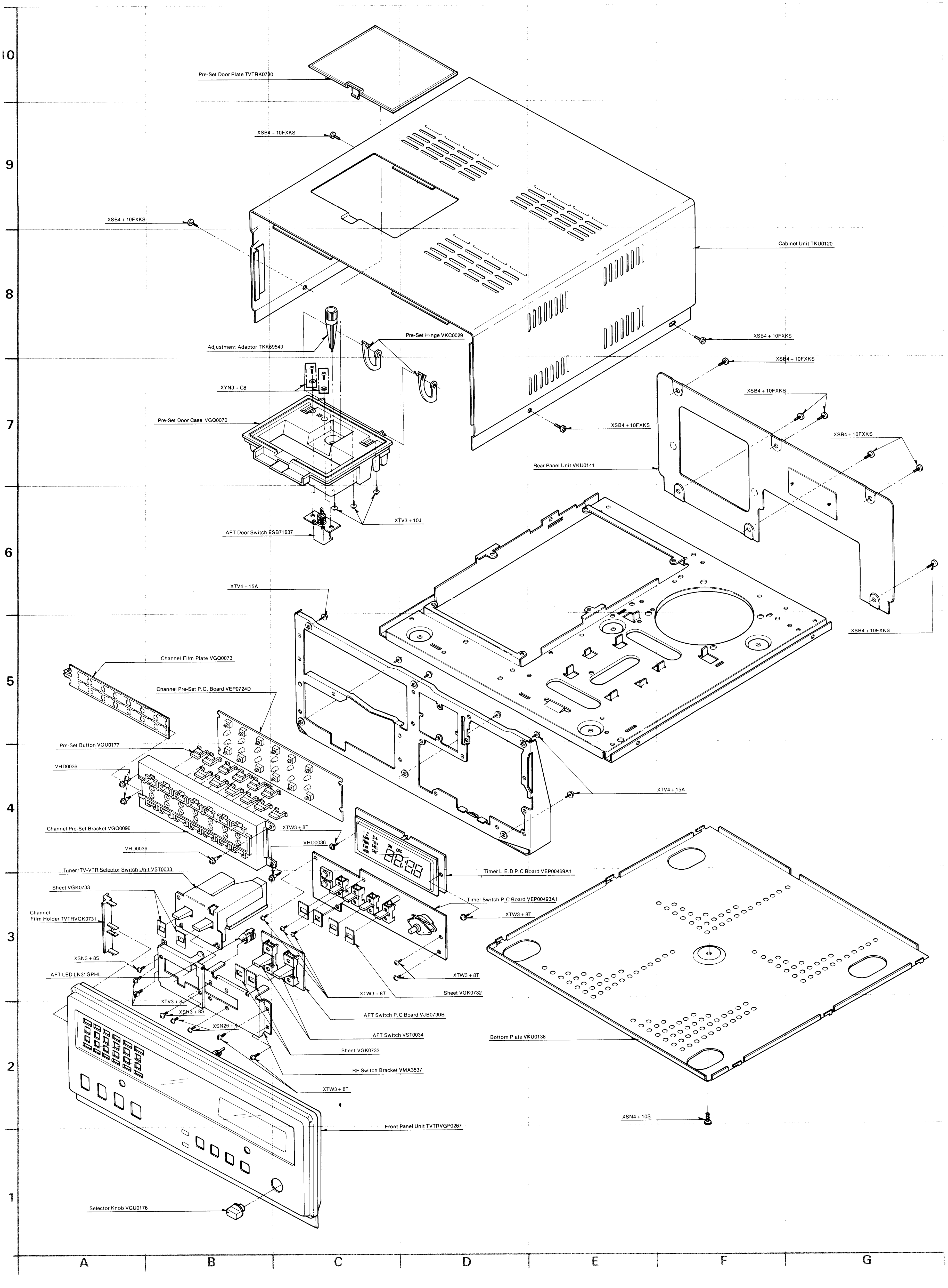
EXPLODED VIEW ❶ *Packing Parts Section*


Cushion (Top) VPN0502
Fan Bag VQF0485 (NV-V800E)
VQF0486 (NV-V800B)
Cord Packing VPN0501
Polyethylene Bag VPF0130
Cushion (Bottom) VPN0503
Packing Case VPG0685 (NV-V800E)
VPG0686 (NV-V800B)
5
4
3
2
1
A
B
C
D

② Chassis Parts Section


Battery Case Cover (Top) VKF0039
Battery NR-AAF2
Spacer VMA3871
Battery Case Cover VGQ0071
XTV3 + 8J
XTV3 + 8J
Angle VMA3607
Channel Tuning Frame VMA3608
Angle VMA3607
XTV3 + 8J
XTV3 + 8J
Case TVTRVGQ0081
Reinforcing Angle VMA3600
XTV3 + 6J
Channel Tuning P.C Board (1) VEP0722A1-(NV-V800E)
VEP0722B1-(NV-V800B)
Channel Tuning P.C Board (2) VEP0723A1-(NV-V800E)
VEP0723B1-(NV-V800B)
Voltage Selector Bracket VMA3857
XYN26 + C8FXKS
Knob VSX0081
XTV3 + 8J
XYN3 + C8
RF DIN Connector TCS9105
XTV3 + 8J
XTV3 + 8J
Power Voltage Selector Switch VSS0045
Bushing VMP5027
AC Cord TSX1126-(NV-V800E)
TSX1119-(NV-V800B)
XTV3 + 8J
Antenna Terminal Board ENPD707
XTV3 + 8J
XTV3 + 8J
XTV3 + 8J
XTV3 + 8J
Power Switch ESB70134
Channel Tuning Case Angle VMA3538
XYN3 + C6
Cord Holder TUX6318
Bushing VJF0027
XTV3 + 8J
Reinforcing Angle VMA3970
XTW3 + 8T
10 Pin Cable VEC0161
Clamper XUAUX16830
XTW3 + 8T
XTW3 + 8T
Reinforcing Angle VMA3969
Antenna Terminal Board Frame VMA3540
XTW3 + 8T
XTW3 + 8T
XTW3 + 8T
Power Transformer ETP57Q34E
XTW3 + 8T
XTV3 + 8J
XYN4 + F0
Mounting Angle VMA3861
XTV4 + 10J
Main P.C Board VEP0739A (NV-V800E)
VEP0739B (NV-V800B)
XTW3 + 8T
Power Supply P.C Board VEP0738A1
Timer P.C Board Frame Unit VMA3856
Power Line P.C Board VJB0737A1
XTV3 + 8J
XTW3 + 8T
Foot TMM1553
XNG4BS
XTW3 + 8T
XSN4 + 10S
Cover VMX0236
XTV3 + 8J
XTW3 + 8T
Reinforcing Bracket VMA3549
Timer Main P.C Board VEP00470A1
Foot TMM1553
XTW3 + 8T
Foot TMM1553
XTV3 + 8J
XSN4 + 10S
XSN4 + 10S
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G

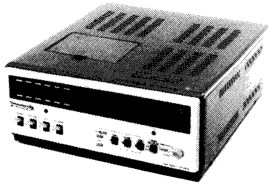
❸ Casing Parts Section


10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
Pre-Set Door Plate TVTRK0730
XSB4 + 10FXKS
XSB4 + 10FXKS
Cabinet Unit TKU0120
Pre-Set Hinge VKC0029
Adjustment Adaptor TKK69543
XSB4 + 10FXKS
XSB4 + 10FXKS
XYN3 + C8
XSB4 + 10FXKS
Pre-Set Door Case VGQ0070
XSB4 + 10FXKS
XSB4 + 10FXKS
Rear Panel Unit VKU0141
XTV3 + 10J
AFT Door Switch ESB71637
XTV4 + 15A
XSB4 + 10FXKS
Channel Film Plate VGQ0073
Channel Pre-Set P.C. Board VEP0724D
Pre-Set Button VGU0177
VHD0036
XTV4 + 15A
Channel Pre-Set Bracket VGQ0096
XTW3 + 8T
VHD0036
VHD0036
Tuner/TV-VTR Selector Switch Unit VST0033
Timer L.E.D P.C Board VEP00469A1
Sheet VGK0733
Timer Switch P.C Board VEP00493A1
XTW3 + 8T
Channel Film Holder TVTRVGK0731
XSN3 + 8S
XTW3 + 8T
AFT LED LN31GPHL
XTW3 + 8T
Sheet VGK0732
XTV3 + 8J
XSN3 + 8S
XSN26 + 4
AFT Switch P.C Board VJB0730B
AFT Switch VST0034
Bottom Plate VKU0138
Sheet VGK0733
RF Switch Bracket VMA3537
XTW3 + 8T
XSN4 + 10S
Front Panel Unit TVTRVGP0287
Selector Knob VGU0176

MECHANICAL REPLACEMENT PARTS LIST

Model No. NV-V800

Notes:
1. * Be sure to make your orders of replacement parts according to this list.
   * "Ⓝ" in Remarks column indicates new parts.



Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
2(F-6)		ENPD707	Antenna Terminal Board	1	
2(D-6)		ESB70143	Power Switch	1	
3(C-6)		ESB71637	AFT Door Switch	1	
2(D-4)		ETP57Q34E	Power Transistor	1	
3(B-3)		LN31GPHL	AFT LED	1	
2(C-9)		NR-AAF2	Battery	1	
2(D-7)		TCS9105	RF DIN Connector	1	
3(C-8)		TKK69543	Adjustment Adaptor	1	
3(D-9)		TKU0120	Cabinet Unit	1	
2(A-3,C-1, D-1)		TMM1553	Foot	4	
2(D-6)		TSX1126	AC Cord	1	NV-V800E
2(D-6)		TSX1119	AC Cord	1	NV-V800B
2(D-6)		TUX6318	Cord Holder	1	
3(C-10)		TVTRK0730	Pre-set Door Plate	1	
3(A-3)		TVTRVGK0731	Channel Film Holder	1	
3(B-2)		TVTRVGP0287	Front Panel Unit	1	
2(C-8)		TVTRVGQ0081	Case	1	
2(E-6)		VEC0161	10 Pin Cable	1	
2(F-2)		VEP00470A1	Timer Main P.C.Board	1	
3(D-4)		VEP00469A1	Timer L.E.D. P.C.Board	1	
3(C-3)		VEP00493A1	Timer Switch P.C.Board	1	
2(C-8)		VEP0722A1	Channel Tuning P.C.Board (1)	1	NV-V800E
2(C-8)		VEP0722B1		1	NV-V800B
2(B-7)		VEP0723A1	Channel Tuning P.C.Board (2)	1	NV-V800E
2(B-7)		VEP0723B1		1	NV-V800B
3(C-4)		VEP0724D	Channel Pre-set P.C.Board	1	
2(E-4)		VEP0738A1	Power Supply P.C.Board	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
2(B-4)		VEP0739A	Main P.C.Board	1	NV-V800E
2(B-4)		VEP0739B		1	NV-V800B
3(C-3)		VGK0732	Sheet	4	
3(B-3)		VGK0733	Sheet	4	
3(C-7)		VGQ0070	Pre-set Door Case	1	
2(C-8)		VGQ0071	Battery Case Cover	1	
3(A-5)		VGQ0073	Channel Film Plate	1	
3(B-4)		VGQ0096	Channel Pre-set Bracket	1	
3(B-1)		VGU0176	Selector Knob	1	
3(B-4)		VGU0177	Pre-set Button	1	
3(C-3)		VJB0730B	AFT Switch P.C.Board	1	
2(F-3)		VJB0737A1	Power Line P.C.Board	1	
2(E-6)		VJF0027	Bushing	1	
3(C-7,D-7)		VKC0029	Pre-set Hinge	2	
2(C-9)		VKF0039	Battery Case Cover(Top)	1	
3(F-3)		VKU0138	Bottom Plate	1	
3(F-7)		VKU0141	Rear Panel Unit	1	
3(B-3)		VMA3537	RF Switch Bracket	1	
2(B-6)		VMA3538	Channel Tuning Case Angle	1	
2(F-5)		VMA3540	Antenna Terminal Board Frame	1	
2(C-2)		VMA3549	Reinforcing Bracket	1	
2(A-7)		VMA3600	Reinforcing Angle	1	
2(D-9,E-8)		VMA3607	Angle	2	
2(D-8)		VMA3608	Channel Tuning Frame	1	
2(E-2)		VMA3856	Timer P.C.Board Frame Unit	1	
2(E-7)		VMA3857	Voltage Selector Bracket	1	
2(F-4)		VMA3861	Mounting Angle	1	
2(B-9,C-9)		VMA3871	Spacer	2	
2(E-5)		VMA3969	Reinforcing Angle	1	
2(C-5)		VMA3970	Reinforcing Angle	1	
2(D-6)		VMP5027	Bushing	1	
2(F-3)		VMX0236	Cover	1	
1(B-4)		VPF0130	Polyethylene Bag	1	
1(C-5)		VQF0485	Fan Bag	1	NV-V800E

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
1(C-5)	VQF0486	Fan Bag	1	NV-V800B
1(B-2)	VPG0685	Packing Case	1	NV-V800E
1(B-2)	VPG0686		1	NV-V800B
1(C-4)	VPN0501	Cord Packing	1	
1(B-5)	VPN0502	Cushion (Top)	2	
1(B-4)	VPN0503	Cushion (Bottom)	2	
2(D-6)	VSS0045	Power Voltage Selector Switch	1	
3(B-3)	VST0033	Tuner/TV-VTR Selector Switch Unit	1	
3(B,C-3)	VST0034	AFT Switch	1	
2(F-7)	VSX0081	Knob	1	
2(C-5)	XUAUX16830	Clamper	1	
	VHD0036	Screw	2	
	XSB4+10S	Screw	5	
	XSN4+10S	Screw	5	
	XSN26+4	Screw	1	
	XTV3+8J	Screw	8	
	XTW3+8T	Screw	20	
	XTW3+8J	Screw	12	
	XYN3+C8	Screw	1	
	XSN3+8S	Screw	1	
	XTV3+10J	Screw	2	
	XTV4+10J	Screw	1	
	XTV4+15A	Screw	2	
	XYN3+C6	Screw	1	
	XYN3+C8	Screw	1	
	XYN4+F0	Screw	1	
	XYN26+C8	Screw	1	
	XNG4BS	Nut	1	

ELECTRICAL REPLACEMENT PARTS LIST

Model No. NV-V800

Notes:

1. * Be sure to make your orders of replacement parts according to this list.
   * "Ⓝ" in Remarks column indicates new parts.
2. IMPORTANT SAFETY NOTICE
   Components identified by ⚠ have special characteristics important for safety.
   When replacing any of these components, use only the original ones.
3. Unless otherwise specified,
   All resistors are in OHMS (Ω), 1/8W ±5% carbon. K=1,000Ω, M=1,000KΩ.
   All capacitors are in MICROFARADS (μF), ±10% P=μμF.

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
	VEP0739A	MAIN P.C. BOARD	1	NV-V800E
	VEP0739B	MAIN P.C. BOARD	1	NV-V800B
	VEP0738A1	POWER SUPPLY P.C. BOARD	1	
	VEP0724D	CHANNEL PRE SET P.C.	1	
		BOARD		
	VEP0722A1	CHANNEL TUNING P.C.	1	NV-V800E
		BOARD (1)		
	VEP0722B1	CHANNEL TUNING P.C.	1	NV-V800B
		BOARD (1)		
	VEP0723A1	CHANNEL TUNING P.C.	1	NV-V800E
		BOARD (2)		
	VEP0723B1	CHANNEL TUNING P.C.	1	NV-V800B
		BOARD (2)		
	VEP00470A1	TIMER MAIN P.C. BOARD	1	
	VEP00493A	TIMER SWITCH P.C. BOARD	1	
	VEP00469A1	TIMER L.E.D. P.C. BOARD	1	
	VEP0730A	AFT SWITCH P.C. BOARD	1	
	VJB0737A1	POWER LINE P.C. BOARD	1	⚠
	VJB00471A1	TEST SIGNAL SWITCH P.C.	1	
		BOARD		

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		MAIN P.C. BOARD		
		Integrated Circuits		
IC701	AN240P	IC for Sound IF, Differen-	1	
		tial amp and volume		
		control		
IC702	BN5111	IC for Video IF, AFC,	1	
		AGC and Video Amp		
IC7101	AN5010	2-16 Decorder, 4 Bit	1	
		Counter and Input		
		Control		
		Transistors		
Q701-703,	2SD778		4	
7113				
Q705	2SD636Q		1	
Q7101	2SB643		1	
Q7102,7107	2SD636		2	
Q7105	2SB644		1	
Q7106,7110	2SB641		2	
Q7115	2SD637		1	
Q7116-7118	2SB642		5	NV-V800E
Q7120,7121				
Q7119	2SD637		1	NV-V800E
		Diodes		
D7103-7115	MA161		16	
D7120,7129,				
7130				
D701,7117,	MA150		5	
7118,7128,				
7140				

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
D7141-7145		MA150		5	NV-V800E
D7116,7121		0A91		2	
D7122		UPC574J		1	
			Resistors		
R701,713,		ERD25TJ222	2.2K	3	
7103					
R702,703,		ERD25TJ103	10K	7	
7101,7104,					
7126,7135,					
7163					
R7173,7174		ERD25TJ103	10K	4	NV-V800E
R7180,7183					
R705,709		EVNA6AA00B14	Variable 10K	2	
R707		ERD25TJ822	8.2K	1	
R711		ERD25TJ821	820	1	
R712		ERD25TJ221	220	1	
R7182,7186		ERD25TJ220	22	2	NV-V800E
R716,7122		ERD25TJ331	330	2	
R717		ERD14RJ821	820	1	
R720		ERD14RJ272	2.7K	1	
R722		ERD25TJ682	6.8K	1	
R723		EVTS3MA00B23	Variable 2K	1	
R724		ERD14RJ332	3.3K	1	
R725		ERD25TJ391	390	1	
R730,743		ERD14RJ102	1K	2	
R740		ERD25TJ152	1.5K	1	
R7157,742,		ERD25TJ562	5.6K	4	
7111,7108					
R745		ERQ12HJ220	22	1	
R746,7109		ERD25TJ183	18K	2	
R747		ERD25TJ333	33K	1	
R748		ERD25TJ473	47K	1	
R749,7105		ERD25TJ102	1K	2	
R750,7161		ERD25TJ563	56K	2	
R751		ERD14RJ152	1.5K	1	
R752		ERD25TJ683	68K	1	
R753		ERD25VJ151	150	1	
R7102,7160		ERD25TJ393	39K	2	
R7106,7112		ERD25TJ273	27K	2	
R7107,7125,		ERD25TJ104	100K	4	
7170,7179					
R7110		ERD14RJ103	10K	1	
R7175		ERD25TJ273	27K	1	NV-V800E
R7115		ERD25TJ101	100	1	
R7116		ERG2ANJ821	820	1	⚠
R7118		ERG1ANJ152	1.5K	1	⚠
R7119		ERD25TJ122	1.2K	1	
R7120,7121,		ERD25TJ123	12K	3	
7124					
R7123,7162		ERD25TJ223	22K	2	
R7171		ERD14AKJ474	470K	1	
R7176		ERD25TJ102	1K	1	NV-V800E
R7177		ERD25TJ560	56	1	NV-V800E
R7178		ERD25TJ333	33K	1	NV-V800E
		ERD25TJ103	10K	1	NV-V800B
R7181		ERD25TJ102	1K	1	NV-V800E
R7184		ERD25TJ102	1K	1	NV-V800E
R7185		EVTT3AA00B54	Variable 50K	1	NV-V800E
R7187		ERD25TJ333	33K	1	NV-V800E
		ERD25TJ220	22	1	NV-V800B
RX7101		EXBT812392K	High-Mix	1	
			Capacitors		
C701,706,		ECKR1H103PF2	Ceramic 50V 0.01	9	
717,730,					
735,741,					
742,744,					
745					

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C702		ECCR1H560KC2	Ceramic 50V 56P	1	NV-V800E
		ECCR1H270KC	Ceramic 50V 27P	1	NV-V800B
C703		ECEA1ES4R7B	Electrolytic 25V 4.7	1	
C704		ECEA50N1B	Electrolytic 50V 1	1	
C705		ECQM1H153KZ	Myler 50V 0.015	1	
C707		ECEA1CS471E	Electrolytic 16V 470	1	
C708		ECQM1H473KZW	Myler 50V 0.047	1	
C709		ECCW1H080DC	Ceramic 50V 8P	1	
C711,722		ECEA1CS100B	Electrolytic 16V 10	5	
C725,7145,					
7121					
C712		ECEA1AS102E	Electrolytic 10V 1000	1	
C714		ECCW1H680JC2	Ceramic 50V 68P	1	
C715		ECCW1H020CC	Ceramic 50V 2P	1	
C716		ECCW1H040CC	Ceramic 50V 4P	1	
C718		ECSZ25EF1N	25V 1	1	
C719		ECCR1H560KPZ	Ceramic 50V 56P	1	
C720		ECCR1H220KC	Ceramic 50V 22P	1	
C721		ECEA25N3R3E	Electrolytic 25V 3.3	1	
C723,734		ECKR1H222PF	Ceramic 50V 2200P	2	
C726		ECQM1H823KZW	Myler 50V 0.082	1	
C727		ECEA1HS2R2B	Electrolytic 50V 2.2	1	
C731		ECEA50ZR33E	Electrolytic 50V 0.33	1	
C732		ECKW1H102KB9	Ceramic 50V 0.001	1	
C733		ECEA1ES3R3B	Electrolytic 25V 3.3	1	
C736		ECCR1H220JC	Ceramic 50V 22P	1	
C738		ECEA1CS330E	Electrolytic 16V 33	1	NV-V800E
C740		ECCW1H120JC	Ceramic 50V 12P	1	
C743		ECKD1H103PF2	Ceramic 50V 0.01	1	
C749		ECCD1H820JR2	Ceramic 50V 82P	1	
C750		ECEA16N4R7B	Electrolytic 16V 4.7	1	
C751		ECCD1H100C	Ceramic 50V 1P	1	
C752		ECEA1CS470E	Electrolytic 16V 47	1	
C753		ECCW1H151KC	50V 150P	1	
C7101		ECEA1AS470E	Electrolytic 10V 47	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C7102,7104		ECQM1H183KZ3	Myler 50V 0.018	1	
C7103,7106		ECEA1HS010B	Electrolytic 50V 1	2	
C7105		ECKW1H103PF2	Ceramic 50V 0.01	1	
C7107		ECEA50ZR68B	Electrolytic 50V 0.68	1	
C7141		ECEA1HS010E	Electrolytic 50V 1	1	
C7142		ECQM1H683KZB	Myler 50V 0.068	1	
C7143		ECEA1HS3R3E	Electrolytic 50V 3.3	1	NV-V800E
C7144		ECEA1CS100B	Electrolytic 16V 10	1	NV-V800E
C7145		ECEA1CS100B	Electrolytic 16V 10	1	NV-V800E
C7146		ECEA50ZR1E	Electrolytic 50V 0.1	1	
C7147		ECEA1CS470E	Electrolytic 16V 47	1	NV-V800E
		ECEA1CS100B	Electrolytic 16V 10	1	NV-V800B
C7148		ECEA1CS470E	Electrolytic 16V 47	1	NV-V800E
		ECEA1CS100B	Electrolytic 16V 10	1	NV-V800B
			Ceramic Diseriminator		
FL701		EFCA5R5MC3C		1	NV-V800E
		EFCA6R0MC3A		1	NV-V800B
FL702		EFCS5R5MS3		1	
FL703		EFCS5R5MW3		1	NV-V800E
		EFCS6R0MW3		1	NV-V800B
			Coils		
L701		TLT390K999G	39µ	1	
L702		ELQS220KB	22µ	1	
L703		TLT150K999G	15µ	1	
L704		TLT470K999G	47µ	1	NV-V800E
		TLT390K999G	39µ	1	NV-V800B
L705		TLT270K999G	27µ	1	
L707		TLT680K999G	68µ	1	
L708		TLT220K999G	22µ	1	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		Transformers		
T701	EIV10S597A		1	
T702	EIV10S597B		1	
T703	EIM5A721		1	
T704	EIS10S583A		1	
T705	EUL-HLB465		1	NV-V800E
	EUL-HLB466		1	NV-V800B
		Connectors		
P701	VJJ0020		1	
P703,7101	VJP0090	5 Pin	2	
P704,7102,	VJP0089	3 Pin	3	
7103				
P7104,7105,	VJP0091	10 Pin	4	
7108,7109				
		Tuner Units		
	TNV77401F2		1	NV-V800E
	TNV87401F2		1	NV-V800B
		Miscellaneous		
	VJH24	Test Point	13	

Ref. No.	Part No.	Part Name & Description	Pcs / Set	Remarks
		POWER SUPPLY P.C. BOARD		
		Integrated Circuits		
IC101	UPC14312H		1	⚠
IC102	UPD4069C		1	
		Transistors		
Q101	2SB643R		1	
Q102,104-	2SD634		7	
108, 111				
Q103	2SD778		1	
		Diodes		
D101	RB-152		1	⚠
D103	TVSQB01-07		1	
D104	RM1Z		1	
D105,106	MA150		2	
		Resistors		
R101	ERF5SJ121	120	1	⚠
R102,119,	ERD25TJ223	22K	3	
123				
R103,117,	ERD25TJ102	1K	3	
129				
R105	ERC14GK125	1.2M	1	
R106	EVTS3MA00B24	Variable 20K	1	
R107	ERO14AKF5602	56K	1	
R108,114,	ERD25TJ332	3.3K	3	
134				
R109,111,	ERD25TJ682	6.8K	3	
112				

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R110		ERD25TJ561	56	1	
R113		ERD25TJ181	180	1	
R115		ERD25TJ822	8.2K	1	
R116		ERD25TJ680	68	1	
R118		ERD25TJ330	33	1	
R120		ERD25TJ124	120K	1	
R121		ERD25TJ274	270K	1	
R122		ERD25TJ154	150K	1	
R124,126,		ERD25TJ104	100K	3	
136					
R125		ERD25TJ334	330K	1	
R128,135		ERD25TJ103	10K	2	
R133		ERD25TJ822	8.2K	1	
			Capacitors		
101-104		ECKW1H103PF2	50V 0.01	4	
C105		ECEA1VS102E	35V 1000	1	
C107		ECKW2H103PE8	500V 0.01	1	
C108		ECET63R102SW	63V 1000	1	
C109		ECEA1CS470E	16V 47	1	
C110		ECCW1H271JC	50V 270P	1	
C111,112		ECCW1H561J	50V 560P	2	
C113		ECEA1CS100E	16V 10	1	
C115		ECEA1CS102E	10V 1000	1	
			Fuses		
F101		XBAT61251	250mA	1	⚠
F102		XBA2C06TR0	630mA	1	⚠
			Connectors		
P102		VJP0090	5Pin	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
P103		VJP0094	10 Pin	1	
P104,105		VJP0089	3 Pin	2	
			Miscellaneous		
P101		TEL302	Pin	6	
		TJC6320	Fuse Holder	4	⚠
		VJH24	Test Point	14	
			CHANNEL PRE SET P.C.		
			BOARD		
D7202-7207,		LN31GCP-U.HL	L.E.D	12	
D7209-7214					
R7202-7207,		ERD25TJ221	Resistor 220	12	
R7209-7214					
SW2-7,		EVQQ8R13K	Switch	12	
SW9-14					

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			CHANNEL TUNING P.C. BOARD		
			Diodes		
D7302-7307		MA161C		12	
D7309-7314					
D7316-7321		MA161C		12	NV-V800E
D7323-7328					
			Resistors		
R7302-7307		EWEUAG110B24	Variable	12	NV-V800E
R7309-7314		EWEUAA110B24	Variable	12	
			AFT SWITCH P.C. BOARD		
SW22,23		VST0034	Switch	2	
		LN31GPHL	L.E.D	1	
		TJT1326	L.E.D Holder	1	
		VJS1023	Pin	6	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			POWER LINE P.C. BOARD		
R150		ERC127GK335	Resistor 3.3M	1	⚠
C150		ECKDHS472MD	Capacitor AC400V 4700P	1	⚠
F151		XBAT61251	Fuse 250mA	1	⚠
		TJC6320	Fuse Holder	2	⚠
		TEL302-9	Pin	8	
			TEST SIGNAL SWITCH P.C		
			BOARD		
SW103		ESD3228	Test Sig Switch	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			TIMER MAIN P.C. BOARD		
			Integrated Circuit		
IC6201		MN1430DA		1	
			Transistors		
Q6201,6202,		2SC828A		6	
6205,6207,					
6209,6210					
Q6203,6208,		2SA564A		3	
6211					
Q6204		2SC1683		1	
Q6206		2SC1384		1	
Q6212		2SD389		1	
			Diodes		
D6201		MA1075		1	
D6202,6218		MA1130A		2	
D6211		WZ162T		1	
D6213		WZ140T		1	
D6214		WZ079T		1	
D6215		MA1051		1	
D6212,		10E2		4	
D6219-6221					
D6205-6209		MA150		8	
D6216,6217,					
6222					
			Resistors		
R6201		EVMH1GA00B15	Variable 100K	1	

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
R6202,6205		ERD14TJ752	7.5K	3	
R6206					
R6203		ERD14TJ473	47K	1	
R6204,6207		ERD14TJ104	100K	1	
R6208		ERD14TJ562	5.6K	1	
R6209,6240		ERD14TJ103	10K	3	
R6241					
R6210,6232		ERD14TJ154	150K	3	
R6231					
R6211-6217		EXBP88473M	47K	2	
R6218-6225					
R6226		ERD14TJ102	1K	1	
R6227		ERD14TJ223	22K	1	
R6228		ERG5SJ391	390	1	
R6229		ERG12ANJ472	4.7K	1	
R6230		ERG2ANJ202H	2K	1	⚠
R6233		ERG1ANJ301H	300	1	⚠
R6234		ERG12ANJ182	1.8	1	
R6235		ERD14TJ200	20	1	
R6237		ERD14TJ682	6.8K	1	
R6238		ERD14TJ301	300	1	
R6239		ERD14TJ331	330	1	
R6242		ERD14TJ512	5.1K	1	
R6243		ERD14TJ101	100	1	
R6245		ERD14TJ681	680	2	
R6236,6244		EVMA1AA00B54	Variable 50K	2	
			Capacitors		
C6201		ECSF35E1E	35V 1	1	
C6202		ECCW1H101KC2	50V 100P	1	
C6203,6204		ECKR1H102KB2	50V 0.001	3	
C6207					

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
C6205		ECSF10E10E	10V 10	1	
C6206		ECEA1ES4R7E	25V 4.7	1	
C6208		ECKW1H103PF2	50V 0.01	1	
C6211,6219		ECEA1AS101E	10V 100	2	
C6212		ECEA1CS101E	16V 1	1	
C6213		ECEA1HS010E	50V 1	1	
C6214		ECQM1H224KZ	50V 0.22	1	
C6215		ECQV1A103MDB	125V 0.01	1	
C6216,6218		ECEA1ES470B	25V 47	2	
C6209		ECEA1JS471E	63V 470	1	
			Transformer		
T6201		BT22		1	
F6201		XBA2C10TR0	Fuse 1.0A	1	⚠
			Connectors		
P6201		VJP0094	10 Pin	1	
P6202		VJP0089	3 Pin	1	
		VEP00474A	X.TAL OSC P.C BOARD	1	
		TJC6320	Fuse Holder	2	⚠

Ref. No.		Part No.	Part Name & Description	Pcs / Set	Remarks
			TIMER SWITCH P.C. BOARD		
			Diodes		
D6203,6204		MA150		2	
D6210		LN21PR	L.E.D	1	
S6201		ESR-E123F7AE	Rotary Switch	1	
S6202		VST0026	Lever Switch	1	
S6203,6204, 6205		VST0036	Lever Switch	3	
S6206,6207		EVQP1R04K	Push Switch	2	
			TIMER L.E.D. P.C. BOARD		
		6LT41	L.E.D	1	